City of San Jose - PBCE – Planning Division - Imaging Index Cover Sheet

Address/Location: **southwest corner of Monterey Road and Goble Lane. (2745 MONTEREY RD)**

Permit/Project No.: **PDC02-066** Issuance Date:

Prepped By: **LMONIZ** Closed By: **GROBLES** RSN: **950476**

Category	Document Type	Sub Document Type
☐ (EF) Environmental Files (203)	☐ (PP) Public Project Files (203-03)	☐ (EN) EIR ☐ (DA) Approved Document ☐ (EM) Maps ☐ (AE) Application ☐ (AG) Agency Correspondence ☐ (EG) General Correspondence ☐ (TR) Technical Reports ☐ (RE) Archaeological Reports ☐ (EP) Plans
☐ (GP) General Plan (204)	☐ (GA) General Plan Amendments (204-02)	☐ (AM) Amendment ☐ (AA) Application ☐ (CG) Correspondence
	☐ (GE) Environmental Review (for 204 series GP Amendments)	☐ (GD) Approved Document ☐ (GI) EIR ☐ (GS) Supporting Documents ☐ (GT) Technical Reports ☐ (GR) Archaeological
☒ (DR) Development Review (207) DRAFT EIR/ENVIRON. ASSESSMENT Volume II: Technical Appendices W/out Transportation Appendices APRIL 2005	☐ (PR) Projects (207-02, 207-03, etc.)	☐ (ZN) Zoning ☐ (PE) Permit ☐ (MP) Maps ☐ (AP) Application ☐ (AC) Agency Correspondence ☐ (GC) General Correspondence ☐ (PL) Plans
	☒ (ER) Environmental Review (for 207 series Project Files)	☐ (EA) Approved Document ☒ (EI) EIR ☐ (ES) Supporting Documents ☐ (ET) Technical Reports ☐ (AR) Archaeological
	☐ (AD) Adjustments (207-12)	☐ (DO) Documents ☐ (PA) Plans
	☐ (PI) Public Info Letters (207-29)	☐ (LE) Letter ☐ (LS) Supporting Docs

DRAFT
ENVIRONMENTAL IMPACT REPORT/
ENVIRONMENTAL ASSESSMENT

GOBLE LANE MIXED-USE DEVELOPMENT FOR PLANNED DEVELOPMENT REZONING

PDC02-066/NR05-001

SCH No. 2005022057

Volume II - Technical Appendices
(Without Transportation Appendices)

City of San José
April 2005

Appendix A

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

October 8, 2004

Ms. Shannon George
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126
(408) 248-3500
Fax: (408) 248-9641

Subject: Goble Lane Housing Development, Reconnaissance-level Wetland Assessment. Project Number 2439-01

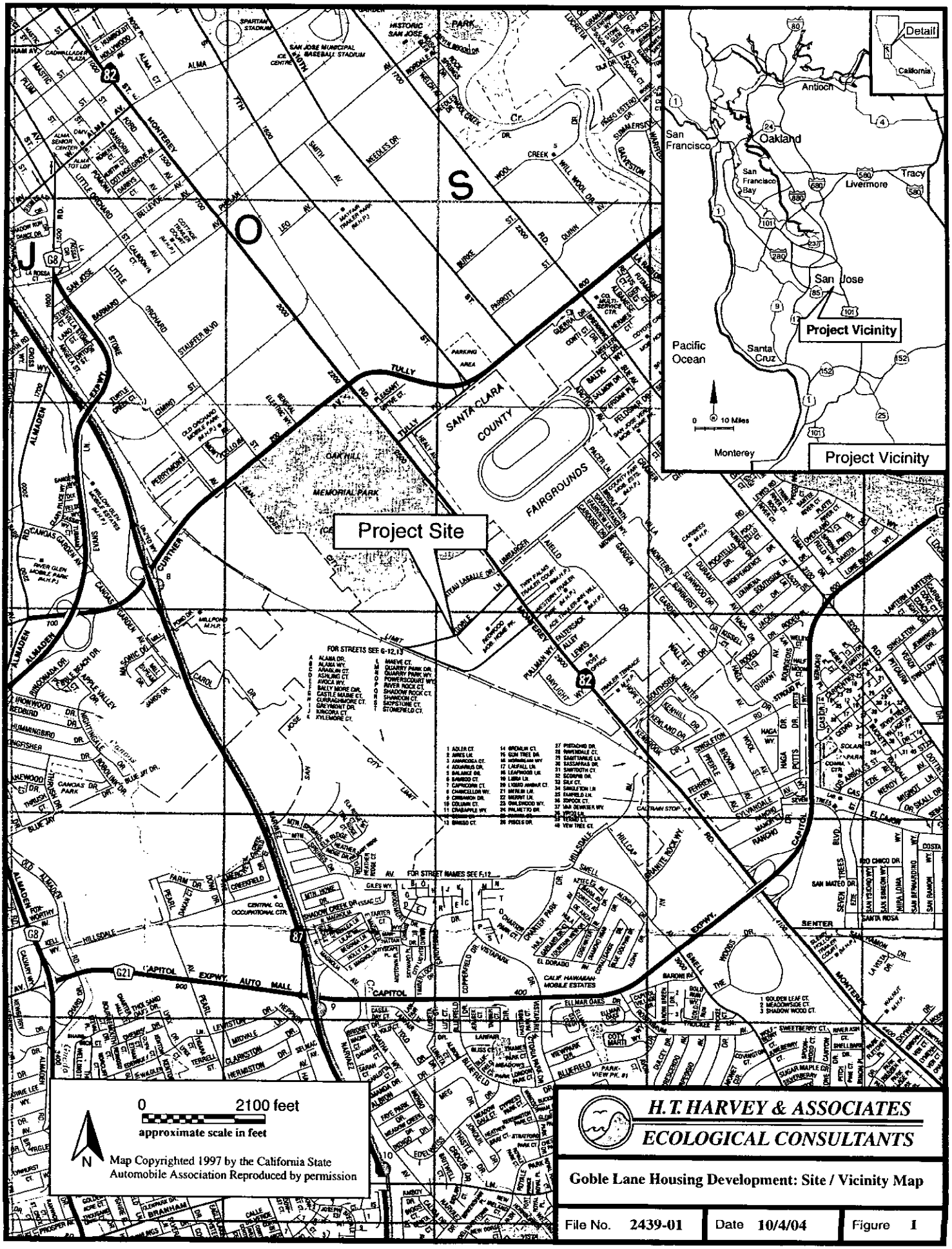
Dear Ms. George,

This report summarizes the results of a reconnaissance-level wetland assessment within areas covered by Zones G and H of the Goble Lane Housing Development project site, located off Monterey Highway in San Jose, California (Figure 1). These zones are located in the northwest corner of the 30-acre property. This area of the property was examined for wetlands and other waters potentially regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. The vegetation and hydrology of the site was briefly examined following the guidelines outlined in Section D "Routine Determination Method" of the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). This multi-parameter approach to identifying wetlands is based upon the presence of hydrophytic vegetation, hydric soils and wetland hydrology. In addition, the site was examined for wetland resources potentially regulated by the Regional Water Quality Control Board (RWQCB). No habitat map was prepared for this assessment.

H. T. Harvey & Associates' wetland ecologist Andrew Dilworth conducted the survey on October 1, 2004. After reviewing topographic maps and aerial photographs, conducting a site visit, and investigating the hydrology of ditch and swale features on site, no potential jurisdictional waters were identified. Nevertheless, an overview of USACE and RWQCB regulatory criteria is presented below.

Regulatory Overview

Waters of the U.S. Regulations Overview. Areas meeting the regulatory definition of "Waters of the United States" are subject to the regulatory jurisdiction of the U. S. Army Corps of Engineers. The USACE, under provisions of Section 404 of the Clean Water Act (1972), has jurisdiction over "Waters of the United States" (jurisdictional waters). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise



H.T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

Goble Lane Housing Development: Site / Vicinity Map

File No. 2439-01	Date 10/4/04	Figure 1

defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U.S.," the territorial seas, and wetlands adjacent to "Waters of the U.S." (33 CFR, Part 328, Section 328.3).

Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency (together with the Regional Water Quality Control Board) charged with implementing water quality certification in California.

Waters of the State Regulations Overview. The RWQCB is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. The RWQCB has both federal and state jurisdiction under Section 401 of the Clean Water Act, for activities that could result in a discharge of dredged or fill material to a water body. Federal authority is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the USACE in the form of a Section 401 Water Quality Certification. State authority is exercised when a proposed project is not subject to federal authority, in the form of a Notice of Coverage, Waiver of Waste Discharge Requirements. Many wetlands fall into RWQCB jurisdiction, including some wetlands that are not subject to USACE jurisdiction. RWQCB jurisdiction of other waters, such as streams and lakes, extends below the top of bank.

Identification of Waters of the State. The RWQCB has no formal technical manual or expanded regulations to help in identifying their jurisdiction. The only guidance can be found in Porter-Cologne Water Quality Control Act, Chapter 2, Definitions, which states: "'Waters of the State' means any surface water or ground water, including saline waters, within the boundaries of the state."

Habitats Regulated Under Fish and Game Code Section 1600 *et seq.* Activities that result in the diversion or obstruction of the natural flow of a stream, or substantially change its bed, channel or bank, or utilize any materials (including vegetation) from the streambed require that the project applicant enter into a Streambed Alteration Agreement with CDFG, under sections 1600-1603 of the California Fish and Game Code. The CDFG potentially extends the definition of stream to include "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams mapped on USGS quads, and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife" (CDFG 1994).

Survey Results

The Goble Lane Housing Development project site is located in a mostly industrial section of San Jose between Monterey Highway and the Union Pacific Railroad, just southeast of the Oak Hill Memorial Park. The 30-acre property is mostly developed with an older industrial park and trailer park. The property is also located in an area previously subject to gravel mining. At least one third of the property is highly disturbed, and dominated by non-native invasive plant species or is otherwise fallow in appearance. This includes the northwest corner of the property, which was the only area surveyed in this assessment.

The northwest corner of the site contains a large area of imported fill dirt piled up to 15 feet high above the elevation of Goble Lane (Photo 1, see attachment). This corner of the site was previously flat, according to the USGS San Jose East Quadrangle. As a result of the placement of imported fill, one swale and one ditch have been artificially created on the north and west sides of the imported fill area, respectively (Photos 2 and 3). The ditch along the northern boundary is more pronounced as the topography of a trailer park across from the project site rises another 10 feet above the prevailing grade. Chain-link fences located within these features appear to exclude most of the ditch and swale outside the northern and western project boundaries. The ditch and the swale join together at the northwestern tip of the property in a slightly depressed area with very large blocks of concrete debris. The southeast corner of the survey area has not been covered with imported fill, and is mostly level, except for a few broad excavations (Photo 4); this area is being used for parking and storage of construction materials.

The dominant vegetation within the northwest corner survey area consists entirely of ruderal (disturbance-loving) species, and patches of non-native grassland and scrub habitats. While the mound of imported fill has been mowed this season, it was previously dominated by wild oats (*Avena barbata*) and rip-gut brome (*Bromus diandrus*). Many ruderal species including prickly lettuce (*Lactuca serriola*), common mallow (*Malva neglecta*), doorweed (*Polygonum arenastrum*), and yellow star-thistle (*Centaurea solstitialis*) have since infested the fill area. Both the ditch and the swale are mostly dominated by coyote brush (*Baccharis pilularis*), but the ruderal and non-native grasses listed above are also common in these features. Various ornamental species have also escaped into these features.

Both the ditch and the swale, as well as the vacant lot in the survey area are capable of ponding water for short durations during the winter, due to their closed nature and varying depressional topography, as well as the compaction of the imported fill. As such, many ruderal (i.e. disturbance loving) hydrophytes occur in these areas including stinkweed (*Dittrichia graveolens*), shining peppergrass (*Lepidium latifolium*), heliotrope (*Heliotropium curassavicum*), curly dock (*Rumex crispus*), Meditteranean barley (*Hordeum marinum* ssp. *gussoneanum*), and smilo grass (*Piptatherum miliaceum*), however, none of these species are forming distinct seasonal wetland habitats anywhere on site. In addition, no evidence of extended saturation or inundation such as algal matting, ordinary high water mark, natural incision, or physical indications of hydric soils could be found in any of the features surveyed.

The swale and ditch are contiguous with any storm drain systems, and no outfalls of any kind into these features were observed. However, the ditch is partially concrete-lined along one bank, and various 1-inch and 3-inch PVC pipes are scattered along its edge and bottom; the PVC pipes now appear to be in disrepair (Photo 5). These pipes were possibly once used for irrigation of

ornamental species in the ditch or some kind of industrial runoff. Any seasonal flows in the ditch terminate at a vertical 3-foot concrete pipe, located at the intersection of the ditch and Goble Lane, allowing water to percolate on site (Photo 6). The USGS topographic quadrangle (USGS 1980) and the National Wetland Inventory (USFWS 1976) for the San Jose East quadrangle do not depict any hydrologic resources on site. Finally, the Soil Survey of Santa Clara County (SCS 1964) identifies soils of the Montara and Sunnyvale series as underlying the northwest corner of the Goble Lane property. Of these, the Sunnyvale series is known to have inclusions of hydric soils where soils of this series form low alluvial plains (SCS 1992). The survey area does not form such a plain, and the prevalence of imported fill soils across the site precludes the presence of any native hydric soil features.

Conclusions

No potential jurisdictional waters were observed in the northwest corner of the Goble Lane Housing Development project site. Most of the site is occupied by a large mound of imported fill dirt, and supports only ruderal and developed habitat. The presence of ruderal, invasive hydrophytes on site can be attributed to the artificial creation of ditch and swale features on either side of the fill area, and the compacted fill underlying the vacant lot, all of which allow ponding for short duration (i.e. few days after rainfall events) during the winter. There is no natural hydrology associated with any of the features, and they are not contiguous with any other potential or known Waters of the U.S. Therefore, areas meeting the regulatory definition of Waters of the U.S. or State are entirely absent from the study area.

Hopefully this letter provides you with information to assist you with your planning needs. Please call me, at (408) 448-9450 x 301, with any questions you may have.

Sincerely,

Patrick J. Boursier, Ph. D
Principal

LITERATURE CITED

[CDFG] California Department of Fish and Game. 1994. A field Guide to Lake and Streambed Alteration Agreements. Section 1600-1607. Environmental Services Division.

Environmental Laboratory. 1987. U.S. Corps of Engineers Wetlands Delineation Manual. Department of the Army.

[SCS] Soil Conservation Service. 1964. Soils of Santa Clara County. U. S. Department of Agriculture.

[SCS] Soil Conservation Service. 1992. Hydric Soils in the Santa Clara Area. U. S. Department of Agriculture.

[USFWS] United States Fish and Wildlife Service. 1976. National Wetland Inventory Map for the San Jose East Quadrangle.

[USGS] United States Geological Survey. 1980. San Jose East topographic quadrangle.

[USGS] United States Geological Survey. 1998. Digital orthophoto for San Jose East Quadrangle.

PHOTO PAGES

Photo 1.

Photo 2.

Photo 3.

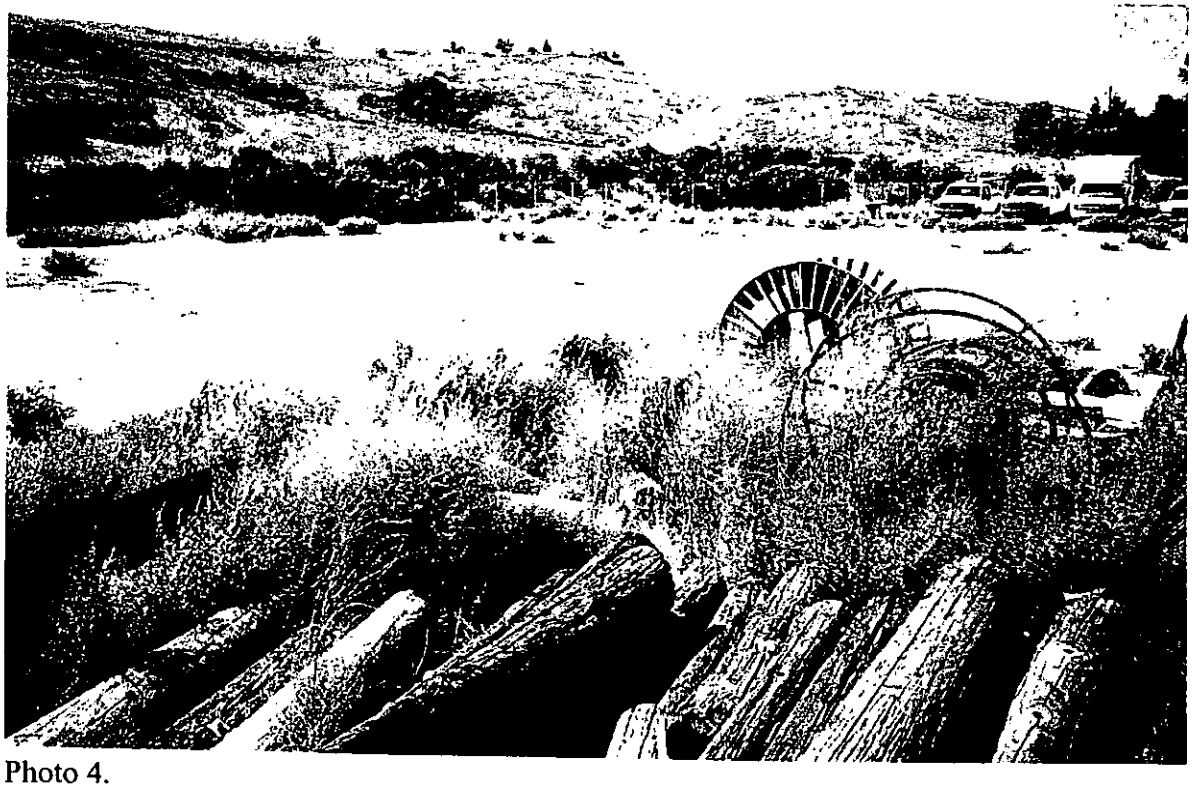


Photo 4.

Photo 5.

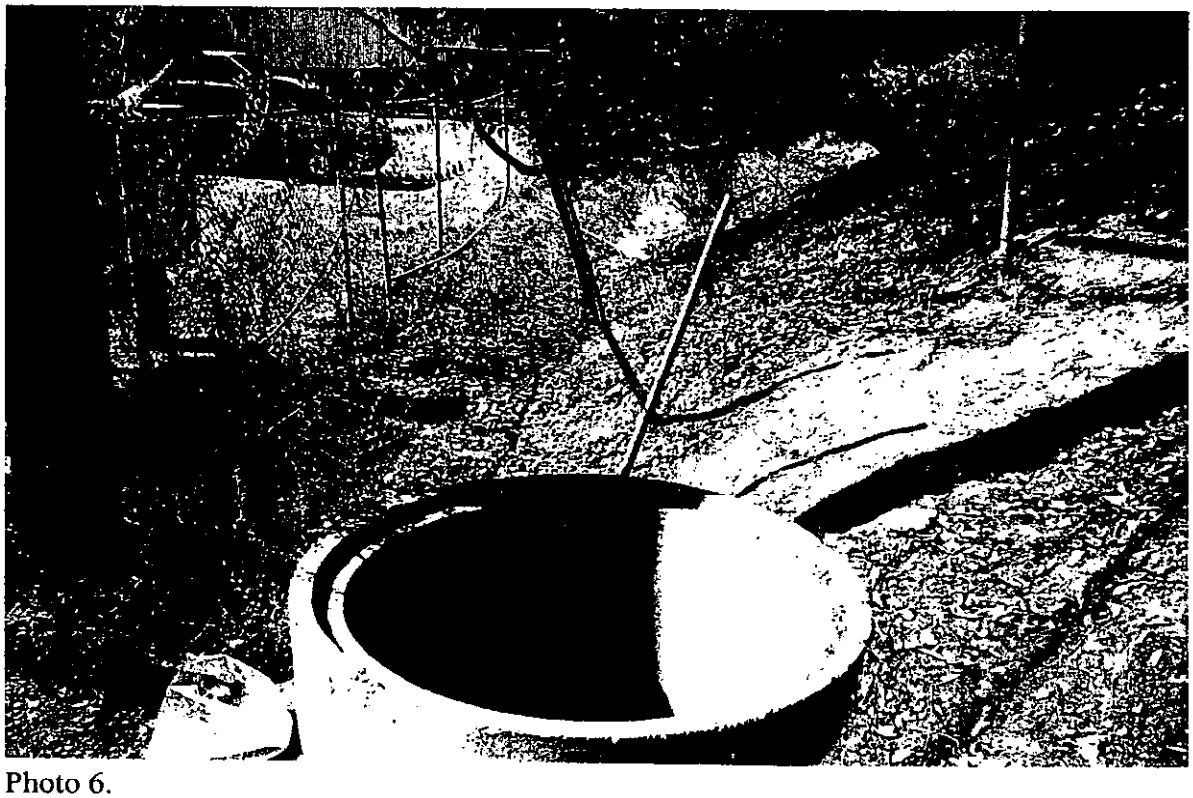


Photo 6.

Appendix B

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

Soil Quality Evaluation

Goble Lane Parcels

San Jose, California

This report has been prepared for:

David J. Powers & Associates

1885 The Alameda, Suite 204, San Jose, California 95126

November 22, 2004
Project No. 1756-1B

Veronica M. Tiglao
Staff Environmental Engineer

Peter M. Langtry, R.G., C.HG.
Principal Environmental Geologist

Ron L. Helm, R.E.A. II, C.E.G.
Senior Principal Geologist
Quality Assurance Reviewer

TABLE OF CONTENTS

SOIL QUALITY EVALUATION
GOBLE LANE PARCELS
SAN JOSE, CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

In this report, we present the results of the soil quality evaluation performed at the Goble Lane site in San Jose, California. This work was performed for David J. Powers & Associates who is preparing California Environmental Quality Act (CEQA) documents for the residential development of the site. The purpose of this work is to evaluate soil quality at selected on-site areas, as recommended during our previous investigation. The additional purpose of this work was to evaluate soil quality in the area of the planned park, as requested by City of San Jose Environmental Program staff.

1.2 Site Background

Based on a 2001 Phase I environmental site assessment (Lowney Associates, 2001a), the approximately 32-acre site was occupied by agricultural fields and structures by 1954. During the late 1950s to early 1960s, the agricultural buildings appeared to have been demolished and the site redeveloped for commercial use. Site use since the early 1960s included multi-tenant commercial and light industrial buildings, storage yards, and a trailer park on the site's northeast corner. Drying ponds for sludge from an adjacent concrete and asphalt plant, dating back to 1960, were present on the site's southeastern corner; the sludge consisted of sediment from the concrete/asphalt aggregate. Portions of the site were additionally used as automobile storage yards.

A soil quality evaluation was conducted at the site in 2001 (Lowney, 2001b). The investigation included the drilling of 24 borings at suspect areas, as discussed below. Ground water was not encountered in borings advanced up to a depth of 45 feet below ground surface (bgs).

Based on laboratory analyses of two soil samples collected near the south/southwestern property boundary near the off-site railroad tracks, volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) were not detected above laboratory reporting limits. dditionally, no metals were detected above typical background concentrations. A low concentration of DDT (0.144 parts per million [ppm]) was detected in one sample and low concentrations of polynuclear aromatic hydrocarbons (PNAs) (0.17 to 0.23 ppm) were detected at two locations. However, DDT and PNA concentrations detected were significantly below residential Preliminary Remediation Goals (PRGs) and Risk Based Screening Levels (RBSLs). Further evaluation of the soil quality in this area did not appear required.

No metals above typical background concentrations were detected in four native soil samples collected from the former automobile salvage yard south/southeast of 2721 to 2727 Monterey Road. Total petroleum hydrocarbons in the motor oil range (TPHmo) were not detected above laboratory reporting limits. Low concentrations of

total petroleum hydrocarbons in the diesel range (TPHd) (up to 9.7 ppm) and gasoline range (TPHg) (0.024ppm) were detected. Further evaluation of the soil quality in this area did not appear required.

Benzene, toluene, ethylbenzene, and xylene (BTEX) compounds were not detected above laboratory reporting limits in five soil samples collected beneath the floors of historic automobile facilities at 136, 153, 157, and 216 Goble Lane and at the south/southeast side of the current automobile repair facility at 225 Goble Lane. Low levels of TPHd (up to 73 ppm), TPHmo (up to 210 ppm), TPHg (0.044 ppm), and acetone (0.08 ppm) were detected in two out of five native soil samples collected. The source of the detected petroleum hydrocarbons appeared to be minor surface spills during maintenance of vehicles. Thus, the vertical and horizontal extents of the impacted soil appeared likely limited in extent. Further evaluation of the soil quality in these areas did not appear required.

Laboratory analysis of one soil sample collected from a reported spill area behind 151 Goble Lane did not detect PNAs or VOCs; metals appeared consistent with typical background concentrations. Further evaluation of soil quality in this area did not appear required.

To evaluate general soil quality for the presence of residual pesticides and lead from lead-based paint, soil samples from the upper ½-foot of native soil were collected at eight locations from the site. No organochlorine pesticides were detected; selected metals were detected within typical background concentrations with the exception of elevated concentrations of lead detected at boring SB-7, at the storage lots located at 154A through 164A Goble Lane. Lead detected (480 ppm) was above the residential PRG, residential RBSL, and Total Threshold Limit Concentration (TTLC). 1,700 ppm lead was also detected at boring SB-7 at an approximate depth of 2 to 2½ feet bgs. The source of the lead was unclear.

Low to moderate hydrocarbon impacts were detected in the soil at seven locations in the unpaved storage yards on-site. The highest levels detected were in borings SB-7 and SB-8, at the 154A through 164A Goble Lane lots; boring SB-11, at the ice cream truck storage yard; and SB-22 at the vacant lot located at the southern portion of the site. Up to 26,000 ppm TPHmo, 9,000 ppm TPHd, and 550 ppm TPHg were detected at SB-7; up to 1,500 ppm TPHmo was detected at SB-8; up to 1,400 ppm TPHmo was detected at SB-11; and up to 2,500 ppm TPHmo was detected at SB-22. Low concentrations of BTEX compounds were additionally detected at SB-7. In addition, low concentrations (0.091 ppm to 0.487 ppm) of VOCs were detected in soil samples from SB-1, SB-7, and SB-22, including 0.27 ppm of acetone; the residential and industrial RBSL for acetone was 0.21 ppm.

The report recommended additional sampling to better establish the extent of impacted soil in areas near the previous borings SB-7, SB-8, SB-11, and SB-22.

1.3 Scope of Work

The scope of work for this study was outlined in our agreement dated August 26, 2004 and September 24, 2004 and included the following tasks.

- Drilling and logging of twenty-three exploratory borings.
- Hand-sampling nine near-surface soil samples.
- Collecting soil samples for laboratory analysis.

2.0 SOIL QUALITY EVALUATION

2.1 Subsurface Investigation

On October 8, 2004 and under the supervision of Principal Environmental Geologist Peter M. Langtry, R.G., C.HG., Staff Environmental Engineer Veronica Tiglao directed a subsurface exploration program and logged twenty-two borings (SB-23 through SB-44) to approximate depths of 4 to 8 feet bgs. Proposed boring location SB-45 was not advanced due to refusal encountered at approximately 1 foot bgs. Nine near-surface soil samples (SS-1 through SS-9) were also collected at proposed park areas.

Exploratory borings SB-23 through SB-30 were drilled in the area of the ice cream truck storage yard to evaluate the vertical and lateral extent of petroleum hydrocarbons previously detected at boring SB-11. Exploratory borings SB-31 through SB-38 and SB-44 were drilled in the area of the 154A, 159A, and 164A Goble Lane lots to evaluate the vertical and lateral distribution of lead and petroleum hydrocarbons previously detected at borings SB-7 and SB-8. Exploratory borings SB-39 through SB-43 were drilled in the vacant lot located at the southern portion of the site to evaluate the vertical and lateral extent of petroleum hydrocarbons previously detected at boring SB-22; these borings also were located in the general area of former drying ponds for the adjacent asphalt plant. The nine near-surface soil samples (SS-1 through SS-9) were collected at proposed park areas for the evaluation of general soil quality. Ground water was not encountered during the subsurface investigation conducted as part of this study. Subsurface materials encountered in the exploratory borings included the following:

- Stratum A*f* (apparent fill), a brown, silty, lean clay, was encountered from the surface to depths ranging up to 5 feet below ground surface. Fill consisting of sand-clay-gravel mixtures were encountered at borings SB-28, SB-31, SB-35, SB-39, SB-40, and SB-42 below the clayey fill to depths ranging up to 7½ feet below ground surface. An apparent asphalt layer approximately 2-inches thick was observed at a depth of approximately 4 feet in borings SB-40 and SB-41. An asphalt-like layer with an oil odor was observed at a depth of approximately 2 to 3 feet in borings SB-31 and SB-35. Some concrete debris was also encountered at boring SB-44 at approximately 1½ feet bgs.
- Stratum A, a native brown, silty, lean clay, was encountered beneath Stratum A*f* to the bottom of borings.

Soil sampling protocol is presented in Appendix A.

2.2 Soil Sample Collection and Analyses

Based on previous analytical results and field observations, thirty-nine soil samples were selected from the borings and analyzed for TPHd and TPHmo (EPA Test Method

8015). Soil samples from the area of previous boring SB-7 were additionally analyzed for total lead (EPA Test Method 6010; twelve samples) and TPHg plus BTEX (EPA Test Method 8015/8020; ten samples). Soil samples from the area of previous boring SB-22 were also analyzed for total lead (EPA Test Method 6010; one sample) and PNAs (EPA Test Method 6010/7000; two samples). Ten soil samples from selected locations across the site were analyzed for asbestos using polarized light microscopy (PLM) CARB method with point count and four soil samples from selected locations across the site were analyzed for mercury (EPA Test Method 6010/7000). Additionally, nine near-surface soil samples were collected from proposed park areas and analyzed for TPHd and TPHmo (EPA Test Method 8015) and mercury (EPA Test Method 6010/7000).

Analytical results are presented in Table 1. Copies of the analytical reports and chain of custody documentation are presented in Appendix B.

Table 1A. Analytical Results of Selected Soil Samples

(concentrations in parts per million)

Boring Number	Depth (feet)	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Xylenes
SS-1	0-½	NA	8.0[1]	150	NA	NA	NA	NA
SS-2	0-½	NA	2.2[1]	<50	NA	NA	NA	NA
SS-3	0-½	NA	4.7[1]	58	NA	NA	NA	NA
SS-4	0-½	NA	7.3[1]	52	NA	NA	NA	NA
SS-5	0-½	NA	43[1]	1,000	NA	NA	NA	NA
SS-6	0-½	NA	27[1]	340	NA	NA	NA	NA
SS-7	0-½	NA	14[1]	230	NA	NA	NA	NA
SS-8	0-½	NA	170[1]	1,100	NA	NA	NA	NA
SS-9	0-½	NA	180[1]	1,100	NA	NA	NA	NA
SB-23	½- 1	NA	110[1]	1,300	NA	NA	NA	NA
SB-23	3-3½	NA	<1.0	<50	NA	NA	NA	NA
SB-24	½- 1	NA	<1.0	<50	NA	NA	NA	NA
SB-24	3-3½	NA	<1.0	<50	NA	NA	NA	NA
SB-25	½- 1	NA	29[1]	390	NA	NA	NA	NA
SB-26	½- 1	NA	55[1]	590	NA	NA	NA	NA
SB-26	3-3½	NA	<1.0	<50	NA	NA	NA	NA
SB-27	½- 1	NA	73[1]	660	NA	NA	NA	NA
SB-27	3-3½	NA	1.5[1]	<50	NA	NA	NA	NA
SB-28	½- 1	NA	36[1]	250	NA	NA	NA	NA
SB-29	½- 1	NA	47[1]	360	NA	NA	NA	NA
SB-29	3-3½	NA	<1.0	<50	NA	NA	NA	NA
SB-30	½- 1	NA	290[1]	1,500	NA	NA	NA	NA
SB-31	½- 1	NA	4.8[1]	80	NA	NA	NA	NA
SB-31	2-2½	<5.0	3,400[1]	15,000	0.065	<0.025	0.38	0.56
SB-31	3½-4	NA	1.2[1]	<50	NA	NA	NA	NA
SB-32	½- 1	NA	<1.0	<50	NA	NA	NA	NA
SB-32	2-2½	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
SB-33	½- 1	NA	37[1]	340	NA	NA	NA	NA
SB-33	2-2½	<1.0	1.3[1]	<50	<0.005	<0.005	<0.005	<0.005
SB-34	2-2½	<1.0	4.0[1]	50	<0.005	<0.005	<0.005	<0.005
SB-34	3½-4	NA	2.5[1]	55	NA	NA	NA	NA
SB-35	2-2½	<1.0	33	300	<0.005	<0.005	<0.005	<0.005
SB-35	3½-4	NA	9,600[1]	27,000	NA	NA	NA	NA
SB-35	4½-5	NA	2.8[1]	<50	NA	NA	NA	NA
SB-36	4-4½	<1.0	47[1]	710	0.0056	<0.005	<0.005	<0.005
SB-36	5½-6	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
SB-37	2-2½	<1.0	3.6[1]	<50	<0.005	<0.005	<0.005	<0.005
SB-38	1½-2	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
SB-39	1½-2	NA	1.7[1]	<50	NA	NA	NA	NA
SB-39	3½-4	NA	<1.0	<50	NA	NA	NA	NA
SB-40	1½-2	NA	190[1]	4,000	NA	NA	NA	NA
SB-40	3½-4	NA	370[1]	13,000	NA	NA	NA	NA
SB-41	5½-6	NA	<1.0	<50	NA	NA	NA	NA
SB-42	3½-4	NA	7,300[1]	70,000	NA	NA	NA	NA
SB-43	1½-2	NA	4.5[1]	54	NA	NA	NA	NA
SB-43	3½-4	NA	12[1]	210	NA	NA	NA	NA
SB-44	2-2½	<1.0	29[1]	140	<0.005	<0.005	<0.005	<0.005
SB-44	3-3½	NA	<1.0	<50	NA	NA	NA	NA
Residential PRG*		NE	NE	NE	0.6	520	8.9	270
Residential ESL**		100	100	500	0.044	2.9	3.3	1.5

* Preliminary Remediation Goal–EPA Region 9, October 2002

** Environmental Screening Level–RWQCB-SF, July 2003

< Indicates that the compound was not detected at or above the stated laboratory reporting limit

1 Total petroleum hydrocarbons detected were in the late diesel range and did not match the laboratory diesel standard

NA Not analyzed

NE Not established

Table 1B. Analytical Results of Selected Soil Samples

(concentrations in parts per million)

Boring Number	Depth (feet)	Total Lead	Mercury	Asbestos
SS-1	0-½	NA	0.31	NA
SS-2	0-½	NA	0.11	NA
SS-3	0-½	NA	0.23	NA
SS-4	0-½	NA	0.14	NA
SS-5	0-½	NA	0.11	NA
SS-6	0-½	NA	0.55	NA
SS-7	0-½	NA	0.21	NA
SS-8	0-½	NA	0.27	NA
SS-9	0-½	NA	0.11	NA
SB-24	½- 1	NA	0.14	NA
SB-25	½-1	NA	NA	ND
SB-25	3-3½	NA	NA	Trace; <1%
SB-26	½- 1	NA	0.77	NA
SB-27	½- 1	NA	0.45	NA
SB-28	½-1	NA	NA	ND
SB-28	3-3½	NA	NA	Trace; <1%
SB-29	½- 1	NA	1.6	NA
SB-31	2-2½	1,100	NA	NA
SB-31	3½-4	8.6	NA	NA
SB-32	2-2½	8.3	NA	ND
SB-32	3½-4	NA	NA	ND
SB-33	2-2½	10	NA	NA
SB-34	2-2½	9.6	NA	NA
SB-35	2-2½	21	NA	NA
SB-36	4-4½	7.9	NA	NA
SB-36	5½-6	9.6	NA	NA
SB-37	2-2½	40	NA	NA
SB-38	1½-2	8.8	NA	NA
SB-40	4-4½	NA	NA	Trace; <1%
SB-40	5½-6	NA	NA	ND
SB-43	3½-4	6.3	NA	ND
SB-43	5½-6	NA	NA	Trace; <1%
SB-44	2-2½	310	NA	NA
SB-44	3-3½	8.9	NA	NA
Residential PRG*		150	23	--
Residential ESL**		200	2.5	--

* Preliminary Remediation Goal-EPA Region 9, October 2002
** Environmental Screening Level-RWQCB-SF, July 2003
< Indicates that the compound was not detected at or above the stated laboratory reporting limit
NA Not analyzed
ND Not detected at or above the laboratory reporting limit

Table 1C. Analytical Results of Selected Soil Samples

(concentrations in parts per million)

Boring Number	Depth (feet)	Phenanthrene[1]	Fluoranthene[1]	Pyrene	Benzo(a) anthracene[1]	Chrysene[1]	Benzo(b) fluoranthene[1]	Benzo(k) fluoranthene[1]	Benzo(a) pyrene[1]	Benzo(ghi) perylene[1]
SB-42	3½-4	0.96	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-43	3½-4	0.04	0.06	0.042	0.0065	0.020	0.014	0.0037	0.0048	0.013
Residential PRG*		NE	2,300	2,300	0.62	3.8	0.62	0.38	0.062	NE
Residential ESL**		11	40	85	0.38	3.8	0.38	0.38	0.038	27

* Preliminary Remediation Goal-EPA Region 9, October 2002
** Environmental Screening Level-RWQCB-SF, July 2003
< Indicates that the compound was not detected at or above the stated laboratory reporting limit
1 Other PNAs analyzed were not detected above laboratory reporting limits
NE Not established

The Environmental Screening Levels (ESLs), revised from earlier RBSLs, presented in Table 1 are published by the San Francisco Bay California Regional Water Quality Control Board (CRWQCB) to address environmental protection goals presented in the *Water Quality Control Plan for the San Francisco Bay Basin* (CRWQCB, 1995). ESLs were developed to protect human and ecological health and to be protective of beneficial uses of ground water taking into account site-specific conditions. The presence of a chemical at a concentration above an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; exceeding ESLs indicates that the potential for impacts may exist and that additional evaluation is needed.

The PRGs presented in Table 1 are risk-based concentrations developed by EPA Region 9; PRGs are for use as screening levels in determining if further evaluation is warranted, in prioritizing areas of concern, in establishing initial cleanup goals, and in estimation of potential health risks.

The PRGs are chemical concentrations that correspond to fixed levels of risk (either a cancer risk of one in one million [10^{-6}] or a non-carcinogenic hazard quotient of one, whichever occurs at a lower concentration). These levels are based on common exposure pathways, but effects of exposure to multiple contaminants and other site specific conditions are not considered. Thus, they are not intended as a substitute for a site specific health risk assessment. Chemical concentrations above the PRGs would not automatically designate the site as a health threat or trigger a response action. Exceeding a PRG, however, may suggest that further evaluation of potential risks is appropriate. This further evaluation may include additional sampling and/or the reassessment of the assumptions and routes of exposure that were used to develop the non-site specific PRGs.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 General Soil Quality – Ice Cream Truck Storage Yard

Mercury detected (in four of four samples analyzed) appears consistent with naturally occurring background levels and is significantly below the residential and industrial PRGs and ESLs for mercury. Based on the concentrations detected, further work concerning mercury in on-site soils at the ice cream storage yard does not appear required.

TPHd was detected in eight of thirteen samples analyzed. TPHd was detected at concentrations above the residential ESL of 100 ppm at SB-23 (110 ppm at an approximate depth of ½ to 1 foot bgs) and SB-30 (290 ppm at an approximate depth of ½ to 1 foot bgs). PRGs for TPHd have not been established.

TPHmo was detected in seven of thirteen samples analyzed. TPHmo was detected at concentrations of up to 1,300 ppm at SB-23 (at an approximate depth of ½ to 1 foot bgs), 590 ppm at SB-26 (at an approximate depth of ½ to 1 foot bgs), 660 ppm at SB-27 (at an approximate depth of ½ to 1 foot bgs), and 1,500 ppm at SB-30 (at an approximate depth of ½ to 1 foot bgs). The residential ESL for TPHmo is 500 ppm. PRGs for TPHmo have not been established.

The source of the detected petroleum hydrocarbons appears to be surface spills from vehicles and other storage. The vertical and horizontal extents of the impacted soil appear relatively limited, although the lateral extent to the northeast and southwest does not appear defined. We recommend this soil be over-excavated to residential ESLs and appropriately disposed off-site.

3.2 General Soil Quality – Vacant Lots at 154A through 164A Goble Lane

Total lead was detected above laboratory reporting limits in all twelve soil samples analyzed. Elevated concentrations of lead were detected at SB-31 at an approximate depth of 2 to 2½ feet bgs (1,100 ppm) and SB-44 at an approximate depth of 2 to 2½ feet bgs (310 ppm). The TTLC for lead is 350 ppm. The TTLC is the level above which a solid waste is considered hazardous per Title 22 of the California Code of Regulations. Based on laboratory analyses of soil samples collected from a depth of approximately 3½ to 4 feet bgs from these borings, the elevated lead concentrations appear limited in depth. We recommend this soil be over-excavated to residential ESLs and appropriately disposed off-site.

TPHg was not detected above laboratory reporting limits in ten samples analyzed. BTEX compounds were detected in two of ten samples analyzed. BTEX compounds detected were below their respective residential PRGs and ESLs except for a concentration of 0.065 ppm benzene detected at an approximate depth of 2 to 2½ feet bgs at SB-31. The residential ESL for benzene is 0.044 ppm. The residential PRG for benzene is 0.6 ppm.

TPHd was detected in thirteen of eighteen samples analyzed. TPHd was detected at concentrations above the residential ESL of 100 ppm at SB-31 (3,400 ppm at an approximate depth of 2 to 2½ to feet bgs) and SB-35 (9,600 ppm at an approximate depth of 3½ to 4 feet bgs). PRGs for TPHd have not been established.

TPHmo was detected in nine of eighteen samples analyzed. TPHmo was detected at concentrations of up to 15,000 ppm at SB-31 (at an approximate depth of 2 to 2½ feet bgs), 27,000 ppm at SB-35 (at an approximate depth of 3½ to 4 feet bgs), and 710 ppm at SB-36 (at an approximate depth of 4 to 4½ feet bgs). The residential ESL for TPHmo is 500 ppm. PRGs for TPHmo have not been established.

The source of the detected petroleum hydrocarbons appears to be surface spills from vehicles and other storage and the asphalt-like material encountered at borings SB-31 and SB-35. Based on conversations with the laboratory regarding analytical results, petroleum hydrocarbons detected in the asphalt-like material were primarily in the motor oil range. We recommend this soil be over-excavated to residential ESLs and appropriately disposed off-site.

3.3 General Soil Quality – Vacant Lot on Southern Portion of Site

TPHd was detected above laboratory reporting limits in six of eight samples analyzed. TPHd was detected at concentrations above the residential ESL of 100 ppm at SB-40 (190 ppm at an approximate depth of 1½ to 2 feet bgs and 370 ppm at an approximate depth of 3½ to 4 feet bgs) and SB-42 (7,300 ppm at an approximate depth of 3½ to 4 feet bgs). PRGs for TPHd have not been established.

TPHmo was detected above laboratory reporting limits in five of eight samples analyzed. TPHmo was detected at concentrations above the residential ESL of 500 ppm at SB-40 (4,000 ppm at approximate depths of 1½ to 2 feet bgs and 13,000 ppm at 3½ to 4 feet bgs) and SB-42 (70,000 ppm at an approximate depth of 3½ to 4 feet bgs). PRGs for TPHmo have not been established.

One sample collected at an approximate depth of 3½ to 4 feet bgs at SB-43 was additionally analyzed for total lead and PNAs. A sample collected at an approximate depth of 3½ to 4 feet bgs at SB-42 was also analyzed for PNAs. Total lead was detected at a concentration of 6.3 ppm, which appears consistent with naturally occurring background levels and is significantly below the residential PRGs and ESLs for lead. PNAs detected included phenanthrene, fluoranthene, pyrene, benzo(a)pyrene, chrysene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and benzo(ghi)perylene. PNAs detected were significantly lower than their respective residential PRGs and ESLs, when established. Other PNAs analyzed were not detected above laboratory reporting limits. The PNAs may be associated with the apparent asphalt layer observed in borings SB-40 and SB-42. Based on the low concentrations detected, further work concerning lead and PNAs in on-site soils located at the southern lot does not appear required.

The source of the detected petroleum hydrocarbons appears to be surface spills from vehicles and other storage and the asphalt-like material encountered at borings SB-40 and SB-42. The asphalt-like material may be associated with the former on-site settling ponds for the adjacent off-site asphalt plant. Based on conversations with the laboratory regarding analytical results, petroleum hydrocarbons detected in the asphalt-like material were primarily in the motor oil range. We recommend this soil be over-excavated to residential ESLs and appropriately disposed off-site.

3.4 General Near-Surface Soil Quality – Proposed Park Areas

Based on our conversations with Mr. Gary Lynch, Environmental Program Manager for the City of San Jose, Mr. Lynch requested analyses of soil samples collected from the future park areas for TPHd and TPHmo to evaluate potential impacts from vehicles parked in the mobile home park and vehicle storage areas. Mr. Lynch additionally requested analyses for mercury to since mercury has been documented in native soils in the site vicinity.

Mercury detected in nine near-surface soil samples collected and analyzed appear consistent with naturally occurring background levels and is significantly below the residential PRGs and ESLs for mercury. Based on the concentrations of mercury detected, further work concerning mercury in on-site soils located at proposed park areas does not appear required.

TPHd was detected above laboratory reporting limits in all nine soil samples analyzed; TPHd was detected at concentrations above its residential ESL of 100 ppm at two locations (170 ppm at SS-8 and 180 ppm at SS-9). PRGs for TPHd have not been established.

TPHmo was detected above laboratory reporting limits in nine of ten samples analyzed; TPHmo was detected at concentrations above the residential ESL of 500

ppm at SS-5 (1,000 ppm), SS-8 (1,100 ppm), and SS-9 (1,100 ppm). PRGs for TPHmo have not been established.

The source of the detected petroleum hydrocarbons appears to be surface spills from vehicles and other storage. The hydrocarbons detected potentially are associated with asphalt pavements in the area. The future park area is currently occupied primarily with a mobile home park. We recommend this soil be over-excavated to residential ESLs and appropriately disposed off-site.

3.5 General Soil Quality – Naturally Occurring Asbestos

Ten soil samples (five soil samples from fill and five soil samples from underlying native) were collected at selected locations across the site and analyzed for asbestos. Four of ten samples detected trace amounts of asbestos (less than 1%) as chrysotile. Other samples analyzed did not detect asbestos above laboratory reporting limits. Based on the low amounts of asbestos detected, further work concerning naturally-occurring asbestos in on-site soils does not appear required.

3.6 Soil Management Plan

Based on our conversations with Mr. Lynch regarding the analytical results, Mr. Lynch was generally not concerned with the petroleum concentrations detected in the future park areas. Mr. Lynch reported that the oil-impacted soil could be managed during construction; significantly stained soil could be segregated and sampled to evaluate appropriate handling and disposal requirements. We recommend a soil management plan that presents protocol for contractors for addressing the oil-impacted soil.

If a more accurate estimate of the quantity of impacted soil is desired, additional soil sampling could be performed, such as in the area of borings SB-31, SB-35, SB-40, and SB-42.

4.0 LIMITATIONS

This report was prepared for the use of David J. Powers & Associates in evaluating soil quality at the Goble Lane Parcels at the time of this study. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for the data presented by others.

The accuracy and reliability of geo- or hydrochemical studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. Chemical analyses were performed for specific parameters during this investigation, as detailed in the scope of services. Please note that additional constituents not analyzed for during this evaluation may be present in soil and ground water at the site. Our sampling and analytical plan was designed using accepted environmental principles and our judgment for the performance of a soil quality evaluation and was based on the degree of investigation approved by you. It is possible to obtain a greater degree

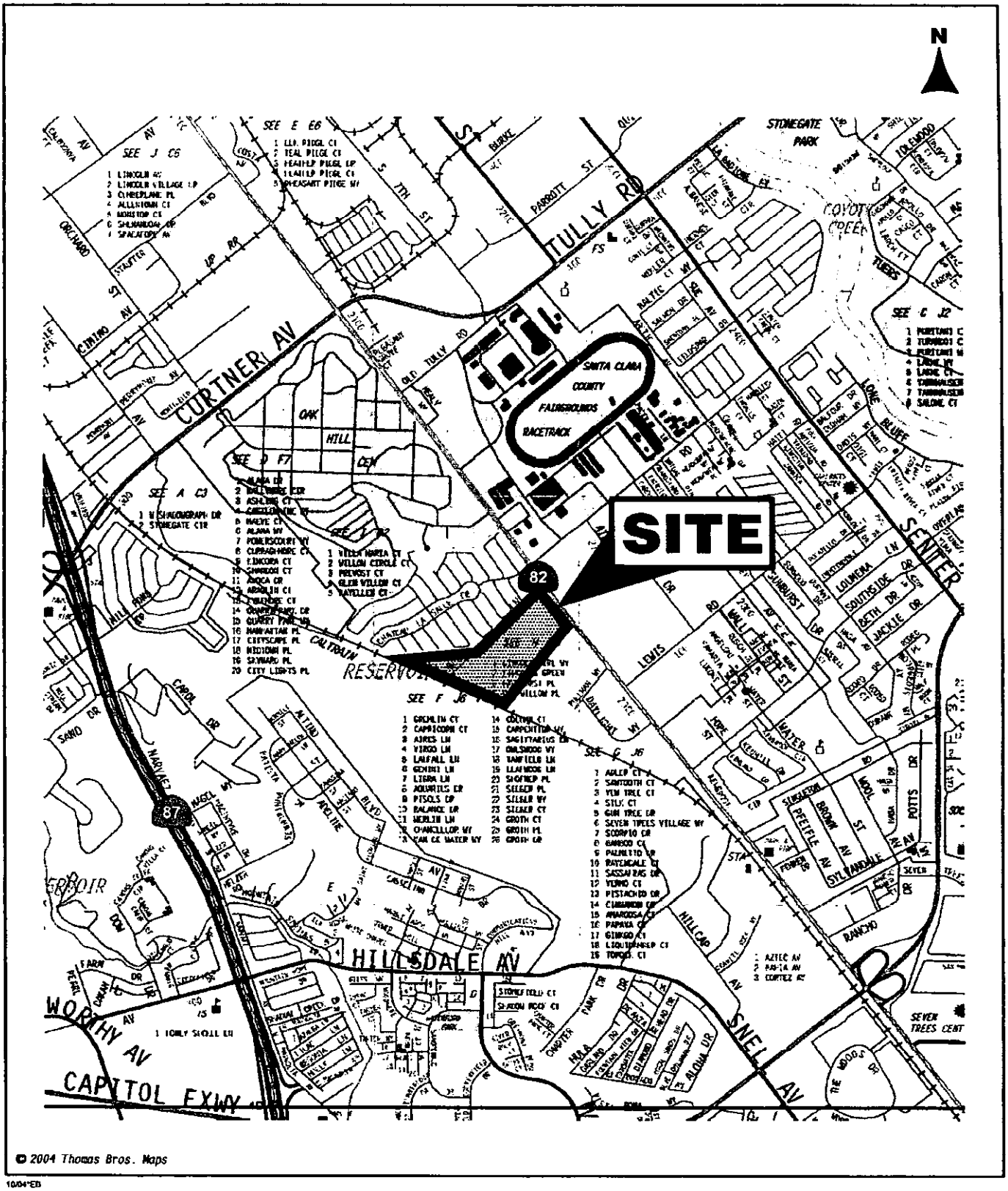
of certainty, if desired, by implementing a more rigorous soil and ground water sampling program or evaluating the risk posed by the contaminants detected, if any.

5.0 REFERENCES

Lowney Associates. October 23, 2001a. *Phase I Environmental Site Assessment, Goble Lane Parcels, San Jose, California.*

Lowney Associates. October 31, 2001b. *Soil and Ground Water Quality Evaluation, Goble Lane Parcels, San Jose, California.*

* * * * * * * * * * * *



10/04 ED

VICINITY MAP

GOBLE LANE PARCELS

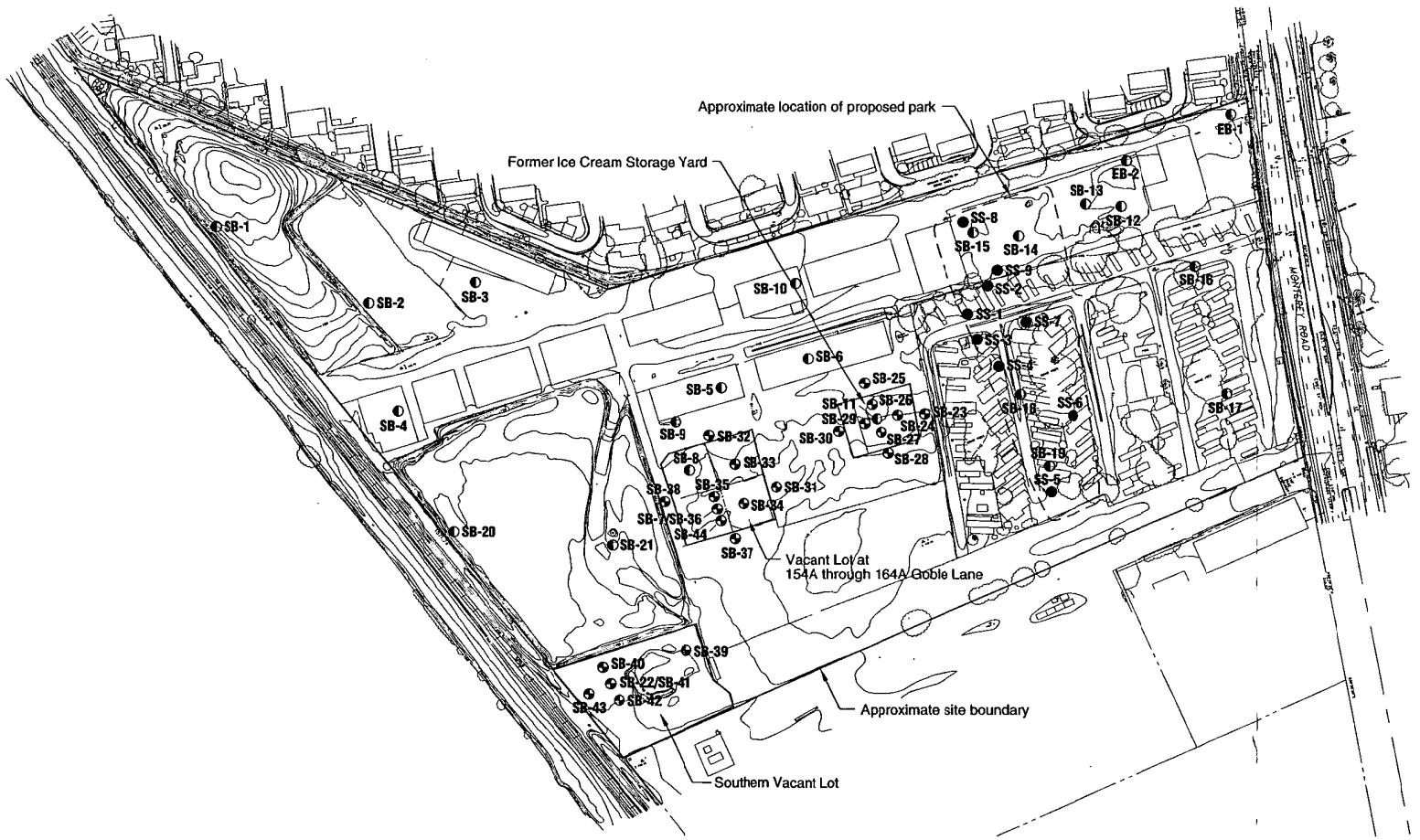
San Jose, California

LOVNEY ASSOCIATES

Environmental/Geotechnical/Engineering Services

FIGURE 1

1756-1B



LEGEND

- ◓ - Approximate location of exploratory boring (Lowney 2004)
- ● - Approximate location of near surface soil sample (Lowney 2004)
- ◐ - Approximate location of previous boring (Lowney 2001)

Base by Creegan & D'Angelo Engineering.

SITE PLAN
GOBLE LANE PARCELS
San Jose, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
1756-1B

10/04*EB

APPENDIX A
SUBSURFACE INVESTIGATION AND SOIL SAMPLING PROTOCOL

Drilling: The subsurface investigation was performed on October 8, 2004 using a truck-mounted drill rig equipped with Direct Push Technology equipment. Twenty-two soil borings were drilled to depths of approximately 4 to 8 feet. The borings were advanced by hydraulically driving a 2-inch-diameter by 4-foot-long open sampler with an interior clear acetate sample liner. After being driven to a depth of 4 feet, the sampler was then retracted to the surface. Additionally, nine soil samples were collected from approximate depths of near surface to ½ foot using hand-sampling equipment.

Soils encountered in the borings were logged using the Unified Soil Classification System (ASTM D-2487).

Soil Sampling: Soil samples for laboratory analysis were collected in brass or acetate liners. The ends of the liners were covered in aluminum foil or Teflon film, fitted with plastic end caps, taped, and labeled with a unique identification number. The samples were then placed in an ice- chilled cooler, and transported to a state-certified analytical laboratory with chain of custody documentation. Soil vapors from each sample were also monitored with an OVM by first placing the soil in a Ziplock™ bag for several minutes. The OVM probe was then used to pierce the bag and record the organic vapor levels present.

Equipment Decontamination: All drilling and sampling equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point.

APPENDIX B
ANALYTICAL RESULTS

The chilled samples were delivered to a state-certified analytical laboratory. Chain of custody documentation was maintained for all samples. Attached are copies of the analytical results and the chain of custody forms.

SEVERN TRENT STL

Submission#: 2004-10-0341

Lowney & Associates Oakland

October 18, 2004

167 Filbert Street
Oakland, Ca 94607
Attn.: Peter Langtry
Project#: 1756-1B
Project: Goble Lane

Dear Peter,

Attached is our report for your samples received on 10/11/2004 18:05
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/25/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: asalimpour@stl-inc.com

Sincerely,

Afsaneh Salimpour
Project Manager

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-31 @ 2-2 1/2	10/08/2004	Soil	38
SB-32 @ 2-2 1/2	10/08/2004	Soil	43
SB-33 @ 2-2 1/2	10/08/2004	Soil	47
SB-34 @ 2-2 1/2	10/08/2004	Soil	51
SB-35 @ 2-2 1/2	10/08/2004	Soil	54
SB-36 @ 4-4 1/2	10/08/2004	Soil	60
SB-36 @ 5 1/2-6	10/08/2004	Soil	61
SB-37 @ 2 -2 1/2	10/08/2004	Soil	64
SB-38 @ 1 1/2-2	10/08/2004	Soil	67
SB-44 @ 2-2 1/2	10/08/2004	Soil	91

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s): 5035
5035

Test(s): 8015M
8021B

Sample ID: SB-31 @ 2-2 1/2

Lab ID: 2004-10-0341 - 38

Sampled: 10/08/2004

Extracted: 10/13/2004 12:36

Matrix: Soil

QC Batch#: 2004/10/13-01.01

Analysis Flag: lm (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	5.0	mg/Kg	4.95	10/13/2004 12:36	
Benzene	0.065	0.025	mg/Kg	4.95	10/13/2004 12:36	
Toluene	ND	0.025	mg/Kg	4.95	10/13/2004 12:36	
Ethyl benzene	0.38	0.025	mg/Kg	4.95	10/13/2004 12:36	
Xylene(s)	0.56	0.025	mg/Kg	4.95	10/13/2004 12:36	
Surrogate(s)						
Trifluorotoluene	105.7	53-125	%	4.95	10/13/2004 12:36	
Trifluorotoluene-FID	123.2	53-125	%	4.95	10/13/2004 12:36	

SEVERN TRENT STL

Submission: 2004-10-0341

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Oakland, Ca 94607
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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s): 5035
5035

Test(s): 8015M
8021B

Sample ID: SB-32 @ 2-2 1/2

Lab ID: 2004-10-0341 - 43

Sampled: 10/08/2004

Extracted: 10/12/2004 15:42

Matrix: Soil

QC Batch#: 2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 15:42	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 15:42	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 15:42	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 15:42	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 15:42	
Surrogate(s)						
Trifluorotoluene	82.3	53-125	%	1.00	10/12/2004 15:42	
4-Bromofluorobenzene-FID	73.3	58-124	%	1.00	10/12/2004 15:42	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-33 @ 2-2 1/2	Lab ID:	2004-10-0341 - 47
Sampled:	10/08/2004	Extracted:	10/12/2004 16:15
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 16:15	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:15	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:15	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:15	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 16:15	
Surrogate(s)						
Trifluorotoluene	80.1	53-125	%	1.00	10/12/2004 16:15	
4-Bromofluorobenzene-FID	67.3	58-124	%	1.00	10/12/2004 16:15	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-34 @ 2-2 1/2	Lab ID:	2004-10-0341 - 51
Sampled:	10/08/2004	Extracted:	10/12/2004 16:48
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 16:48	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:48	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:48	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 16:48	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 16:48	
Surrogate(s)						
Trifluorotoluene	82.7	53-125	%	1.00	10/12/2004 16:48	
4-Bromofluorobenzene-FID	67.7	58-124	%	1.00	10/12/2004 16:48	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-35 @ 2-2 1/2	Lab ID:	2004-10-0341 - 54
Sampled:	10/08/2004	Extracted:	10/13/2004 12:02
Matrix:	Soil	QC Batch#:	2004/10/13-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/13/2004 12:02	
Benzene	ND	0.0050	mg/Kg	1.00	10/13/2004 12:02	
Toluene	ND	0.0050	mg/Kg	1.00	10/13/2004 12:02	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/13/2004 12:02	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/13/2004 12:02	
Surrogate(s)						
Trifluorotoluene	79.5	53-125	%	1.00	10/13/2004 12:02	
4-Bromofluorobenzene-FID	78.2	58-124	%	1.00	10/13/2004 12:02	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-36 @ 4-4 1/2	Lab ID:	2004-10-0341 - 60
Sampled:	10/08/2004	Extracted:	10/12/2004 17:54
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 17:54	
Benzene	0.0056	0.0050	mg/Kg	1.00	10/12/2004 17:54	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 17:54	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 17:54	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 17:54	
Surrogate(s)						
Trifluorotoluene	86.2	53-125	%	1.00	10/12/2004 17:54	
4-Bromofluorobenzene-FID	83.0	58-124	%	1.00	10/12/2004 17:54	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

Lowney & Associates Oakland
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167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-36 @ 5 1/2-6	Lab ID:	2004-10-0341 - 61
Sampled:	10/08/2004	Extracted:	10/12/2004 18:27
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 18:27	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 18:27	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 18:27	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 18:27	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 18:27	
Surrogate(s)						
Trifluorotoluene	87.8	53-125	%	1.00	10/12/2004 18:27	
4-Bromofluorobenzene-FID	77.6	58-124	%	1.00	10/12/2004 18:27	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-37 @ 2 -2 1/2	Lab ID:	2004-10-0341 - 64
Sampled:	10/08/2004	Extracted:	10/12/2004 19:00
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 19:00	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:00	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:00	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:00	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 19:00	
Surrogate(s)						
Trifluorotoluene	78.2	53-125	%	1.00	10/12/2004 19:00	
4-Bromofluorobenzene-FID	66.8	58-124	%	1.00	10/12/2004 19:00	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-38 @ 1 1/2-2	Lab ID:	2004-10-0341 - 67
Sampled:	10/08/2004	Extracted:	10/12/2004 19:33
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 19:33	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:33	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:33	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 19:33	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 19:33	
Surrogate(s)						
Trifluorotoluene	80.9	53-125	%	1.00	10/12/2004 19:33	
4-Bromofluorobenzene-FID	61.3	58-124	%	1.00	10/12/2004 19:33	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	SB-44 @ 2-2 1/2	Lab ID:	2004-10-0341 - 91
Sampled:	10/08/2004	Extracted:	10/12/2004 20:06
Matrix:	Soil	QC Batch#:	2004/10/12-01.01

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	10/12/2004 20:06	
Benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 20:06	
Toluene	ND	0.0050	mg/Kg	1.00	10/12/2004 20:06	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/12/2004 20:06	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/12/2004 20:06	
Surrogate(s)						
Trifluorotoluene	83.3	53-125	%	1.00	10/12/2004 20:06	
4-Bromofluorobenzene-FID	63.9	58-124	%	1.00	10/12/2004 20:06	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 5035
5035

Test(s): 8015M
8021B

Method Blank | **Soil** | **QC Batch # 2004/10/12-01.01**

MB: 2004/10/12-01.01-003

Date Extracted: 10/12/2004 08:08

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	10/12/2004 08:08	
Benzene	ND	0.0050	mg/Kg	10/12/2004 08:08	
Toluene	ND	0.0050	mg/Kg	10/12/2004 08:08	
Ethyl benzene	ND	0.0050	mg/Kg	10/12/2004 08:08	
Xylene(s)	ND	0.0050	mg/Kg	10/12/2004 08:08	
Surrogates(s)					
Trifluorotoluene	96.8	53-125	%	10/12/2004 08:08	
4-Bromofluorobenzene-FID	99.4	58-124	%	10/12/2004 08:08	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 5035
5035

Test(s): 8015M
8021B

Method Blank | **Soil** | **QC Batch # 2004/10/13-01.01**

MB: 2004/10/13-01.01-003

Date Extracted: 10/13/2004 07:55

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	10/13/2004 07:55	
Benzene	ND	0.0050	mg/Kg	10/13/2004 07:55	
Toluene	ND	0.0050	mg/Kg	10/13/2004 07:55	
Ethyl benzene	ND	0.0050	mg/Kg	10/13/2004 07:55	
Xylene(s)	ND	0.0050	mg/Kg	10/13/2004 07:55	
Surrogates(s)					
Trifluorotoluene	96.2	53-125	%	10/13/2004 07:55	
4-Bromofluorobenzene-FID	96.0	58-124	%	10/13/2004 07:55	

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 5035 Test(s): 8021B

Laboratory Control Spike Soil **QC Batch # 2004/10/12-01.01**

LCS 2004/10/12-01.01-004 Extracted: 10/12/2004 Analyzed: 10/12/2004 08:42
LCSD 2004/10/12-01.01-005 Extracted: 10/12/2004 Analyzed: 10/12/2004 09:16

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	0.0988	0.0992	0.1000	98.8	99.2	0.4	77-123	35		
Toluene	0.0939	0.0924	0.1000	93.9	92.4	1.6	78-122	35		
Ethyl benzene	0.0997	0.0977	0.1000	99.7	97.7	2.0	70-130	35		
Xylene(s)	0.295	0.288	0.300	98.3	96.0	2.4	75-125	35		
Surrogates(s)										
Trifluorotoluene	469	473	500	93.8	94.6		53-125			

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 5035 Test(s): 8015M

Laboratory Control Spike Soil **QC Batch # 2004/10/12-01.01**

LCS 2004/10/12-01.01-006 Extracted: 10/12/2004 Analyzed: 10/12/2004 09:48
LCSD 2004/10/12-01.01-007 Extracted: 10/12/2004 Analyzed: 10/12/2004 10:22

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Gasoline	0.529	0.510	0.500	105.8	102.0	3.7	75-125	35	..	
Surrogates(s)										
4-Bromofluorobenzene-FID	463	427	500	92.6	85.4		58-124			

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 16:05

Batch QC Report

Prep(s): 5035 Test(s): 8021B

Laboratory Control Spike **Soil** **QC Batch # 2004/10/13-01.01**

LCS 2004/10/13-01.01-004 Extracted: 10/13/2004 Analyzed: 10/13/2004 08:29
LCSD 2004/10/13-01.01-005 Extracted: 10/13/2004 Analyzed: 10/13/2004 09:02

Compound	Conc.	mg/Kg	Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	0.0950	0.0923	0.1000	95.0	92.3	2.9	77-123	35		
Toluene	0.0897	0.0870	0.1000	89.7	87.0	3.1	76-122	35		
Ethyl benzene	0.0949	0.0927	0.1000	94.9	92.7	2.3	70-130	35		
Xylene(s)	0.281	0.271	0.300	93.7	90.3	3.7	75-125	35		
Surrogates(s)										
Trifluorotoluene	469	435	500	93.8	87.0		53-125			

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 16:05

Batch QC Report

Prep(s): 5035 Test(s): 8015M

Laboratory Control Spike **Soil** **QC Batch # 2004/10/13-01.01**

LCS 2004/10/13-01.01-006 Extracted: 10/13/2004 Analyzed: 10/13/2004 09:36
LCSD 2004/10/13-01.01-007 Extracted: 10/13/2004 Analyzed: 10/13/2004 10:09

Compound	Conc.	mg/Kg	Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Gasoline	0.531	0.515	0.500	106.2	103.0	3.1	75-125	35		
Surrogates(s)										
4-Bromofluorobenzene-FID	456	428	500	91.2	85.6		58-124			

SEVERN TRENT STL

Submission: 2004-10-0341

Gas/BTEX by 8015M/8021

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Legend and Notes

Analysis Flag

lm

Reporting limits raised due to high level of non-target analyte materials.

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

Lowney & Associates Oakland
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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SS-1 @ 0-1/2	10/08/2004	Soil	1
SS-2 @ 0-1/2	10/08/2004	Soil	2
SS-3 @ 0-1/2	10/08/2004	Soil	3
SS-4 @ 0-1/2	10/08/2004	Soil	4
SS-5 @ 0-1/2	10/08/2004	Soil	5
SS-6 @ 0-1/2	10/08/2004	Soil	6
SS-7 @ 0-1/2	10/08/2004	Soil	7
SS-8 @ 0-1/2	10/08/2004	Soil	8
SS-9 @ 0-1/2	10/08/2004	Soil	9
SB-24 @ 1/2-1	10/08/2004	Soil	14
SB-26 @ 1/2-1	10/08/2004	Soil	20
SB-27 @ 1/2-1	10/08/2004	Soil	23
SB-29 @ 1/2-1	10/08/2004	Soil	30

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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167 Filbert Street
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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-1 @ 0-1/2	Lab ID:	2004-10-0341 - 1
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.31	0.050	mg/Kg	1.00	10/13/2004 12:51	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-2 @ 0-1/2	Lab ID:	2004-10-0341 - 2
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.11	0.050	mg/Kg	1.00	10/13/2004 12:54	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-3 @ 0-1/2	Lab ID:	2004-10-0341 - 3
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.23	0.050	mg/Kg	1.00	10/13/2004 12:55	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-4 @ 0-1/2	Lab ID:	2004-10-0341 - 4
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.14	0.050	mg/Kg	1.00	10/13/2004 12:57	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-5 @ 0-1/2	Lab ID:	2004-10-0341 - 5
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.11	0.050	mg/Kg	1.00	10/13/2004 12:58	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-6 @ 0-1/2	Lab ID:	2004-10-0341 - 6
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.55	0.050	mg/Kg	1.00	10/13/2004 12:59	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

Lowney & Associates Oakland
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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-7 @ 0-1/2	Lab ID:	2004-10-0341 - 7
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.21	0.050	mg/Kg	1.00	10/13/2004 13:00	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-8 @ 0-1/2	Lab ID:	2004-10-0341 - 8
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.27	0.050	mg/Kg	1.00	10/13/2004 13:02	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SS-9 @ 0-1/2	Lab ID:	2004-10-0341 - 9
Sampled:	10/08/2004	Extracted:	10/12/2004 12:56
Matrix:	Soil	QC Batch#:	2004/10/12-02.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.11	0.050	mg/Kg	1.00	10/13/2004 13:03	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SB-24 @ 1/2-1	Lab ID:	2004-10-0341 - 14
Sampled:	10/08/2004	Extracted:	10/14/2004 12:16
Matrix:	Soil	QC Batch#:	2004/10/14-03.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.14	0.050	mg/Kg	1.00	10/15/2004 07:30	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SB-26 @ 1/2-1	Lab ID:	2004-10-0341 - 20
Sampled:	10/08/2004	Extracted:	10/14/2004 12:16
Matrix:	Soil	QC Batch#:	2004/10/14-03.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.77	0.050	mg/Kg	1.00	10/15/2004 07:34	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SB-27 @ 1/2-1	Lab ID:	2004-10-0341 - 23
Sampled:	10/08/2004	Extracted:	10/14/2004 12:16
Matrix:	Soil	QC Batch#:	2004/10/14-03.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	0.45	0.050	mg/Kg	1.00	10/15/2004 07:35	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	7471A	Test(s):	7471A
Sample ID:	SB-29 @ 1/2-1	Lab ID:	2004-10-0341 - 30
Sampled:	10/08/2004	Extracted:	10/14/2004 12:16
Matrix:	Soil	QC Batch#:	2004/10/14-03.16

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Mercury	1.6	0.050	mg/Kg	1.00	10/15/2004 07:37	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 7471A
Method Blank
MB: 2004/10/12-02.16-147

Soil

Test(s): 7471A
QC Batch # 2004/10/12-02.16
Date Extracted: 10/12/2004 12:56

Compound	Conc.	RL	Unit	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	10/13/2004 12:47	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

Lowney & Associates Oakland
Attn.: Peter Langtry

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Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 7471A — Test(s): 7471A
Method Blank — Soil — QC Batch # 2004/10/14-03.16
MB: 2004/10/14-03.16-011 — Date Extracted: 10/14/2004 12:16

Compound	Conc.	RL	Unit	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	10/15/2004 07:27	

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 7471A — Test(s): 7471A
Laboratory Control Spike — Soil — QC Batch # 2004/10/12-02.16
LCS 2004/10/12-02.16-148 — Extracted: 10/12/2004 — Analyzed: 10/13/2004 12:48
LCSD 2004/10/12-02.16-149 — Extracted: 10/12/2004 — Analyzed: 10/13/2004 12:49

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Mercury	0.467	0.473	0.500	93.4	94.6	1.3	85-115	20		

SEVERN TRENT STL

Submission: 2004-10-0341

Mercury (Hg)

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 7471A

Test(s): 7471A

Laboratory Control Spike **Soil** **QC Batch # 2004/10/14-03.16**

LCS 2004/10/14-03.16-012 Extracted: 10/14/2004 Analyzed: 10/15/2004 07:28

LCSD 2004/10/14-03.16-013 Extracted: 10/14/2004 Analyzed: 10/15/2004 07:29

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Mercury	0.468	0.475	0.500	93.6	95.0	1.5	85-115	20		

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-31 @ 2-2 1/2	10/08/2004	Soil	38
SB-32 @ 2-2 1/2	10/08/2004	Soil	43
SB-33 @ 2-2 1/2	10/08/2004	Soil	47
SB-34 @ 2-2 1/2	10/08/2004	Soil	51
SB-35 @ 2-2 1/2	10/08/2004	Soil	54
SB-36 @ 4-4 1/2	10/08/2004	Soil	60
SB-36 @ 5 1/2-6	10/08/2004	Soil	61
SB-37 @ 2 -2 1/2	10/08/2004	Soil	64
SB-38 @ 1 1/2-2	10/08/2004	Soil	67
SB-43 @ 3 1/2-4	10/08/2004	Soil	87
SB-44 @ 2-2 1/2	10/08/2004	Soil	91

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
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Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-31 @ 2-2 1/2	Lab ID:	2004-10-0341 - 38
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	1100	1.0	mg/Kg	1.00	10/13/2004 15:35	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-32 @ 2-2 1/2	Lab ID:	2004-10-0341 - 43
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	8.3	1.0	mg/Kg	1.00	10/13/2004 17:25	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-33 @ 2-2 1/2	Lab ID:	2004-10-0341 - 47
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	10	1.0	mg/Kg	1.00	10/13/2004 17:30	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-34 @ 2-2 1/2	Lab ID:	2004-10-0341 - 51
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	9.6	1.0	mg/Kg	1.00	10/13/2004 17:35	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-36 @ 2-2 1/2	Lab ID:	2004-10-0341 - 54
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	21	1.0	mg/Kg	1.00	10/13/2004 17:40	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-36 @ 4-4 1/2	Lab ID:	2004-10-0341 - 60
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	7.9	1.0	mg/Kg	1.00	10/13/2004 17:45	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-36 @ 5 1/2-6	Lab ID:	2004-10-0341 - 61
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	9.6	1.0	mg/Kg	1.00	10/13/2004 17:50	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-37 @ 2 -2 1/2	Lab ID:	2004-10-0341 - 64
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	40	1.0	mg/Kg	1.00	10/13/2004 17:55	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-38 @ 1 1/2-2	Lab ID:	2004-10-0341 - 67
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	8.8	1.0	mg/Kg	1.00	10/13/2004 18:00	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-43 @ 3 1/2-4	Lab ID:	2004-10-0341 - 87
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	6.3	1.0	mg/Kg	1.00	10/13/2004 18:05	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
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Received: 10/11/2004 18:05

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-44 @ 2-2 1/2	Lab ID:	2004-10-0341 - 91
Sampled:	10/08/2004	Extracted:	10/12/2004 13:43
Matrix:	Soil	QC Batch#:	2004/10/12-02.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	310	1.0	mg/Kg	1.00	10/13/2004 18:19	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
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Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3050B — Test(s): 6010B
Method Blank — **Soil** — **QC Batch # 2004/10/12-02.15**
MB: 2004/10/12-02.15-026 — Date Extracted: 10/12/2004 13:43

Compound	Conc.	RL	Unit	Analyzed	Flag
Lead	ND	1.0	mg/Kg	10/13/2004 14:18	

SEVERN TRENT STL

Submission: 2004-10-0341

Total Lead

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3050B — Test(s): 6010B

Laboratory Control Spike — **Soil** — **QC Batch # 2004/10/12-02.15**

LCS 2004/10/12-02.15-027 — Extracted: 10/12/2004 — Analyzed: 10/13/2004 14:24
LCSD 2004/10/12-02.15-028 — Extracted: 10/12/2004 — Analyzed: 10/13/2004 14:30

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Lead	101	100.0	100.0	101.0	100.0	1.0	80-120	20		

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SS-1 @ 0-1/2	10/08/2004	Soil	1
SS-2 @ 0-1/2	10/08/2004	Soil	2
SS-3 @ 0-1/2	10/08/2004	Soil	3
SS-4 @ 0-1/2	10/08/2004	Soil	4
SS-5 @ 0-1/2	10/08/2004	Soil	5
SS-6 @ 0-1/2	10/08/2004	Soil	6
SS-7 @ 0-1/2	10/08/2004	Soil	7
SS-8 @ 0-1/2	10/08/2004	Soil	8
SS-9 @ 0-1/2	10/08/2004	Soil	9
SB-23 @ 1/2-1	10/08/2004	Soil	11
SB-24 @ 1/2-1	10/08/2004	Soil	14
SB-24 @ 3-3 1/2	10/08/2004	Soil	15
SB-25 @ 1/2-1	10/08/2004	Soil	17
SB-26 @ 1/2-1	10/08/2004	Soil	20
SB-26 @ 3-3 1/2	10/08/2004	Soil	21
SB-27 @ 1/2-1	10/08/2004	Soil	23
SB-27 @ 3-3 1/2	10/08/2004	Soil	24
SB-28 @ 1/2-1	10/08/2004	Soil	26
SB-29 @ 1/2-1	10/08/2004	Soil	30
SB-29 @ 3-3 1/2	10/08/2004	Soil	31
SB-30 @ 1/2-1	10/08/2004	Soil	33
SB-31 @ 2-2 1/2	10/08/2004	Soil	38
SB-32 @ 1/2-1	10/08/2004	Soil	42
SB-32 @ 2-2 1/2	10/08/2004	Soil	43
SB-33 @ 1/2-1	10/08/2004	Soil	46
SB-33 @ 2-2 1/2	10/08/2004	Soil	47
SB-34 @ 2-2 1/2	10/08/2004	Soil	51
SB-34 @ 3 1/2-4	10/08/2004	Soil	52
SB-35 @ 2-2 1/2	10/08/2004	Soil	54
SB-35 @ 3 1/2-4	10/08/2004	Soil	55
SB-36 @ 4-4 1/2	10/08/2004	Soil	60
SB-36 @ 5 1/2-6	10/08/2004	Soil	61
SB-37 @ 2 -2 1/2	10/08/2004	Soil	64

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-38 @ 1 1/2-2	10/08/2004	Soil	67
SB-39 @ 1 1/2-2	10/08/2004	Soil	70
SB-39 @ 3 1/2-4	10/08/2004	Soil	71
SB-40 @ 1 1/2-2	10/08/2004	Soil	75
SB-40 @ 3 1/2-4	10/08/2004	Soil	76
SB-41 @ 5 1/2-6	10/08/2004	Soil	80
SB-42 @ 3 1/2-4	10/08/2004	Soil	83
SB-43 @ 1 1/2-2	10/08/2004	Soil	86
SB-43 @ 3 1/2-4	10/08/2004	Soil	87
SB-44 @ 2-2 1/2	10/08/2004	Soil	91
SB-44 @ 3-3 1/2	10/08/2004	Soil	92

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Sample ID: SS-1 @ 0-1/2
Sampled: 10/08/2004
Matrix: Soil

Test(s): 8015M
Lab ID: 2004-10-0341 - 1
Extracted: 10/13/2004 14:23
QC Batch#: 2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	8.0	1.0	mg/Kg	1.00	10/14/2004 21:19	Idr
Motor Oil	150	50	mg/Kg	1.00	10/14/2004 21:19	
Surrogate(s)						
o-Terphenyl	75.4	60-130	%	1.00	10/14/2004 21:19	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-2 @ 0-1/2	Lab ID:	2004-10-0341 - 2
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.2	1.0	mg/Kg	1.00	10/14/2004 20:51	ldr
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 20:51	
Surrogate(s)						
o-Terphenyl	79.8	60-130	%	1.00	10/14/2004 20:51	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-3 @ 0-1/2	Lab ID:	2004-10-0341 - 3
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	4.7	1.0	mg/Kg	1.00	10/14/2004 18:33	ldr
Motor Oil	58	50	mg/Kg	1.00	10/14/2004 18:33	
Surrogate(s)						
o-Terphenyl	81.9	60-130	%	1.00	10/14/2004 18:33	

Severn Trent Laboratories, Inc.
STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566
Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

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Submission: 2004-10-0341

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Project: 1756-1B
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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-4 @ 0-1/2	Lab ID:	2004-10-0341 - 4
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	7.3	1.0	mg/Kg	1.00	10/16/2004 10:52	ldr
Motor Oil	52	50	mg/Kg	1.00	10/16/2004 10:52	
Surrogate(s)						
o-Terphenyl	83.8	60-130	%	1.00	10/16/2004 10:52	

SEVERN TRENT STL

Submission: 2004-10-0341

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Project: 1756-1B
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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-5 @ 0-1/2	Lab ID:	2004-10-0341 - 5
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	43	10	mg/Kg	10.00	10/16/2004 11:20	ldr
Motor Oil	1000	500	mg/Kg	10.00	10/16/2004 11:20	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	10/16/2004 11:20	sd

SEVERN TRENT STL

Submission: 2004-10-0341

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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-6 @ 0-1/2	Lab ID:	2004-10-0341 - 6
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	27	2.0	mg/Kg	2.00	10/16/2004 03:18	ldr
Motor Oil	340	100	mg/Kg	2.00	10/16/2004 03:18	
Surrogate(s)						
o-Terphenyl	89.1	60-130	%	2.00	10/16/2004 03:18	

SEVERN TRENT STL

Submission: 2004-10-0341

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Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-7 @ 0-1/2	Lab ID:	2004-10-0341 - 7
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	14	2.0	mg/Kg	2.00	10/16/2004 03:45	ldr
Motor Oil	230	100	mg/Kg	2.00	10/16/2004 03:45	
Surrogate(s)						
o-Terphenyl	97.3	60-130	%	2.00	10/16/2004 03:45	

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Project: 1756-1B
Goble Lane

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-8 @ 0-1/2	Lab ID:	2004-10-0341 - 8
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Analysis Flag: rl (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	170	5.0	mg/Kg	5.00	10/15/2004 22:38	ldr
Motor Oil	1100	250	mg/Kg	5.00	10/15/2004 22:38	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	5.00	10/15/2004 22:38	sd

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SS-9 @ 0-1/2	Lab ID:	2004-10-0341 - 9
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	180	10	mg/Kg	10.00	10/15/2004 23:06	ldr
Motor Oil	1100	500	mg/Kg	10.00	10/15/2004 23:06	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	10/15/2004 23:06	sd

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Submission: 2004-10-0341

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-23 @ 1/2-1	Lab ID:	2004-10-0341 - 11
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	110	10	mg/Kg	10.00	10/16/2004 04:13	ldr
Motor Oil	1300	500	mg/Kg	10.00	10/16/2004 04:13	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	10/16/2004 04:13	sd

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-24 @ 1/2-1	Lab ID:	2004-10-0341 - 14
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/15/2004 14:55	
Motor Oil	ND	50	mg/Kg	1.00	10/15/2004 14:55	
Surrogate(s)						
o-Terphenyl	71.3	60-130	%	1.00	10/15/2004 14:55	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**SB-24 @ 3-3 1/2**	Lab ID:	2004-10-0341 - 15
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/16/2004 01:02	
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 01:02	
Surrogate(s)						
o-Terphenyl	75.1	60-130	%	1.00	10/16/2004 01:02	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	**SB-25 @ 1/2-1**	Lab ID:	2004-10-0341 - 17
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Analysis Flag: rl (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	29	2.0	mg/Kg	2.00	10/15/2004 21:16	ldr
Motor Oil	390	100	mg/Kg	2.00	10/15/2004 21:16	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	2.00	10/15/2004 21:16	

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Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-26 @ 1/2-1
Lab ID: 2004-10-0341 - 20
Sampled: 10/08/2004
Extracted: 10/13/2004 14:23
Matrix: Soil
QC Batch#: 2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	55	5.0	mg/Kg	5.00	10/15/2004 21:43	ldr
Motor Oil	590	250	mg/Kg	5.00	10/15/2004 21:43	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	5.00	10/15/2004 21:43	sd

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Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-26 @ 3-3 1/2
Lab ID: 2004-10-0341 - 21
Sampled: 10/08/2004
Extracted: 10/13/2004 14:23
Matrix: Soil
QC Batch#: 2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/15/2004 15:23	
Motor Oil	ND	50	mg/Kg	1.00	10/15/2004 15:23	
Surrogate(s)						
o-Terphenyl	73.6	60-130	%	1.00	10/15/2004 15:23	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-27 @ 1/2-1	Lab ID:	2004-10-0341 - 23
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	73	5.0	mg/Kg	5.00	10/15/2004 22:11	ldr
Motor Oil	660	250	mg/Kg	5.00	10/15/2004 22:11	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	5.00	10/15/2004 22:11	sd

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-27 @ 3-3 1/2	Lab ID:	2004-10-0341 - 24
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.5	1.0	mg/Kg	1.00	10/14/2004 19:01	ldr
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 19:01	
Surrogate(s)						
o-Terphenyl	69.2	60-130	%	1.00	10/14/2004 19:01	

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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-28 @ 1/2-1	Lab ID:	2004-10-0341 - 26
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	36	1.0	mg/Kg	1.00	10/15/2004 22:38	ldr
Motor Oil	250	50	mg/Kg	1.00	10/15/2004 22:38	
Surrogate(s)						
o-Terphenyl	85.5	60-130	%	1.00	10/15/2004 22:38	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-29 @ 1/2-1	Lab ID:	2004-10-0341 - 30
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	47	1.0	mg/Kg	1.00	10/15/2004 23:06	ldr
Motor Oil	360	50	mg/Kg	1.00	10/15/2004 23:06	
Surrogate(s)						
o-Terphenyl	90.7	60-130	%	1.00	10/15/2004 23:06	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-29 @ 3-3 1/2	Lab ID:	2004-10-0341 - 31
Sampled:	10/08/2004	Extracted:	10/13/2004 14:23
Matrix:	Soil	QC Batch#:	2004/10/13-06.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/14/2004 13:42	
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 13:42	
Surrogate(s)						
o-Terphenyl	68.1	60-130	%	1.00	10/14/2004 13:42	

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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-30 @ 1/2-1	Lab ID:	2004-10-0341 - 33
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	290	10	mg/Kg	10.00	10/16/2004 01:56	ldr
Motor Oil	1500	500	mg/Kg	10.00	10/16/2004 01:56	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	10/16/2004 01:56	sd

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Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-31 @ 2-2 1/2
Lab ID: 2004-10-0341 - 38
Sampled: 10/08/2004
Extracted: 10/14/2004 07:48
Matrix: Soil
QC Batch#: 2004/10/14-02.10
Analysis Flag: rl (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	3400	5.0	mg/Kg	125.00	10/16/2004 11:20	ldr
Motor Oil	15000	250	mg/Kg	125.00	10/16/2004 11:20	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	125.00	10/16/2004 11:20	sd

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Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-32 @ 1/2-1
Lab ID: 2004-10-0341 - 42
Sampled: 10/08/2004
Extracted: 10/14/2004 07:48
Matrix: Soil
QC Batch#: 2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/14/2004 19:29	
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 19:29	
Surrogate(s)						
o-Terphenyl	84.7	60-130	%	1.00	10/14/2004 19:29	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-32 @ 2-2 1/2	Lab ID:	2004-10-0341 - 43
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/14/2004 19:56	
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 19:56	
Surrogate(s)						
o-Terphenyl	84.9	60-130	%	1.00	10/14/2004 19:56	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-33 @ 1/2-1	Lab ID:	2004-10-0341 - 46
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	37	2.0	mg/Kg	2.00	10/14/2004 18:14	idr
Motor Oil	340	100	mg/Kg	2.00	10/14/2004 18:14	
Surrogate(s)						
o-Terphenyl	79.3	60-130	%	2.00	10/14/2004 18:14	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-33 @ 2-2 1/2	Lab ID:	2004-10-0341 - 47
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.3	1.0	mg/Kg	1.00	10/14/2004 20:24	idr
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 20:24	
Surrogate(s)						
o-Terphenyl	77.9	60-130	%	1.00	10/14/2004 20:24	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-34 @ 2-2 1/2	Lab ID:	2004-10-0341 - 61
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	4.0	1.0	mg/Kg	1.00	10/14/2004 20:51	idr
Motor Oil	50	50	mg/Kg	1.00	10/14/2004 20:51	
Surrogate(s)						
o-Terphenyl	78.3	60-130	%	1.00	10/14/2004 20:51	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-34 @ 3 1/2-4	Lab ID:	2004-10-0341 - 52
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.5	1.0	mg/Kg	1.00	10/14/2004 17:20	ldr
Motor Oil	55	50	mg/Kg	1.00	10/14/2004 17:20	
Surrogate(s)						
o-Terphenyl	70.9	60-130	%	1.00	10/14/2004 17:20	

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Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-35 @ 2-2 1/2	Lab ID:	2004-10-0341 - 54
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	33	1.0	mg/Kg	1.00	10/14/2004 16:52	
Motor Oil	300	50	mg/Kg	1.00	10/14/2004 16:52	
Surrogate(s)						
o-Terphenyl	79.0	60-130	%	1.00	10/14/2004 16:52	

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-35 @ 3 1/2-4	Lab ID:	2004-10-0341 - 55
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Analysis Flag: rl (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	9600	250	mg/Kg	250.00	10/16/2004 12:15	idr
Motor Oil	27000	13000	mg/Kg	250.00	10/16/2004 12:15	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	250.00	10/16/2004 12:15	sd

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Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-36 @ 4-4 1/2	Lab ID:	2004-10-0341 - 60
Sampled:	10/08/2004	Extracted:	10/14/2004 07:48
Matrix:	Soil	QC Batch#:	2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	47	10	mg/Kg	10.00	10/16/2004 02:24	idr
Motor Oil	710	500	mg/Kg	10.00	10/16/2004 02:24	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	10.00	10/16/2004 02:24	sd

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Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-36 @ 5 1/2-6
Lab ID: 2004-10-0341 - 61
Sampled: 10/08/2004
Extracted: 10/14/2004 07:48
Matrix: Soil
QC Batch#: 2004/10/14-02.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/14/2004 21:19	
Motor Oil	ND	50	mg/Kg	1.00	10/14/2004 21:19	
Surrogate(s)						
o-Terphenyl	82.9	60-130	%	1.00	10/14/2004 21:19	

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Goble Lane

Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-37 @ 2 -2.1/2
Lab ID: 2004-10-0341 - 64
Sampled: 10/08/2004
Extracted: 10/14/2004 18:48
Matrix: Soil
QC Batch#: 2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	3.6	1.0	mg/Kg	1.00	10/16/2004 02:24	ldr
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 02:24	
Surrogate(s)						
o-Terphenyl	81.0	60-130	%	1.00	10/16/2004 02:24	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-38 @ 1 1/2-2	Lab ID:	2004-10-0341 - 67
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/16/2004 01:29	
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 01:29	
Surrogate(s)						
o-Terphenyl	65.8	60-130	%	1.00	10/16/2004 01:29	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-39 @ 1 1/2-2	Lab ID:	2004-10-0341 - 70
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.7	1.0	mg/Kg	1.00	10/16/2004 02:51	ldr
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 02:51	
Surrogate(s)						
o-Terphenyl	82.1	60-130	%	1.00	10/16/2004 02:51	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-39 @ 3 1/2-4	Lab ID:	2004-10-0341 - 71
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/16/2004 01:56	
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 01:56	
Surrogate(s)						
o-Terphenyl	62.9	60-130	%	1.00	10/16/2004 01:56	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-40 @ 1 1/2-2	Lab ID:	2004-10-0341 - 75
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	190	40	mg/Kg	40.00	10/18/2004 12:15	idr
Motor Oil	4000	2000	mg/Kg	40.00	10/18/2004 12:15	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	40.00	10/18/2004 12:15	sd

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-40 @ 3 1/2-4	Lab ID:	2004-10-0341 - 76
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	370	100	mg/Kg	100.00	10/16/2004 10:52	ldr
Motor Oil	13000	5000	mg/Kg	100.00	10/16/2004 10:52	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	100.00	10/16/2004 10:52	sd

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

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Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-41 @ 5 1/2-6	Lab ID:	2004-10-0341 - 80
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/16/2004 03:18	
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 03:18	
Surrogate(s)						
o-Terphenyl	61.1	60-130	%	1.00	10/16/2004 03:18	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
Attn.: Peter Langtry

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-42 @ 3 1/2-4
Lab ID: 2004-10-0341 - 83
Sampled: 10/08/2004
Extracted: 10/14/2004 18:48
Matrix: Soil
QC Batch#: 2004/10/14-07.10
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	7300	500	mg/Kg	500.00	10/18/2004 12:33	ldr
Motor Oil	70000	25000	mg/Kg	500.00	10/18/2004 12:33	
Surrogate(s)						
o-Terphenyl	NA	60-130	%	500.00	10/18/2004 12:33	sd

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-43 @ 1 1/2-2
Lab ID: 2004-10-0341 - 86
Sampled: 10/08/2004
Extracted: 10/14/2004 18:48
Matrix: Soil
QC Batch#: 2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	4.5	1.0	mg/Kg	1.00	10/16/2004 04:13	ldr
Motor Oil	54	50	mg/Kg	1.00	10/16/2004 04:13	
Surrogate(s)						
o-Terphenyl	84.1	60-130	%	1.00	10/16/2004 04:13	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-43 @ 3 1/2-4	Lab ID:	2004-10-0341 - 87
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	12	1.0	mg/Kg	1.00	10/16/2004 01:02	ldr
Motor Oil	210	50	mg/Kg	1.00	10/16/2004 01:02	
Surrogate(s)						
o-Terphenyl	100.9	60-130	%	1.00	10/16/2004 01:02	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-44 @ 2-2 1/2	Lab ID:	2004-10-0341 - 91
Sampled:	10/08/2004	Extracted:	10/14/2004 18:48
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	29	1.0	mg/Kg	1.00	10/16/2004 01:29	ldr
Motor Oil	140	50	mg/Kg	1.00	10/16/2004 01:29	
Surrogate(s)						
o-Terphenyl	65.0	60-130	%	1.00	10/16/2004 01:29	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-44 @ 3-3 1/2	Lab ID:	2004-10-0341 - 92
Sampled:	10/08/2004	Extracted:	10/14/2004 18:45
Matrix:	Soil	QC Batch#:	2004/10/14-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	10/16/2004 03:45	
Motor Oil	ND	50	mg/Kg	1.00	10/16/2004 03:45	
Surrogate(s)						
o-Terphenyl	81.0	60-130	%	1.00	10/16/2004 03:45	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M — Test(s): 8015M
Method Blank — Soil — **QC Batch # 2004/10/13-06.10**
MB: 2004/10/13-06.10-001 — Date Extracted: 10/13/2004 14:23

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	10/14/2004 14:04	
Motor Oil	ND	50	mg/Kg	10/14/2004 14:04	
Surrogates(s)					
o-Terphenyl	69.1	60-130	%	10/14/2004 14:04	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M
Test(s): 8015M
Method Blank
Soil
QC Batch # 2004/10/14-02.10
MB: 2004/10/14-02.10-001
Date Extracted: 10/14/2004 07:48

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	10/14/2004 13:42	
Motor Oil	ND	50	mg/Kg	10/14/2004 13:42	
Surrogates(s)					
o-Terphenyl	84.8	60-130	%	10/14/2004 13:42	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M
Test(s): 8015M
Method Blank
Soil
QC Batch # 2004/10/14-07.10
MB: 2004/10/14-07.10-001
Date Extracted: 10/14/2004 18:48

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	10/15/2004 16:11	
Motor Oil	ND	50	mg/Kg	10/15/2004 16:11	
Surrogates(s)					
o-Terphenyl	64.6	60-130	%	10/15/2004 16:11	

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

Lowney & Associates Oakland
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167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike **Soil** **QC Batch # 2004/10/13-06.10**

LCS 2004/10/13-06.10-002 Extracted: 10/13/2004 Analyzed: 10/14/2004 14:33
LCSD 2004/10/13-06.10-003 Extracted: 10/13/2004 Analyzed: 10/14/2004 15:01

Compound	Conc.	mg/Kg	Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	26.0	29.0	41.6	62.5	69.7	10.9	60-130	25		
Surrogates(s)										
o-Terphenyl	15.9	16.7	20.0	79.3	83.5		60-130	0		

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike **Soil** **QC Batch # 2004/10/14-02.10**

LCS 2004/10/14-02.10-002 Extracted: 10/14/2004 Analyzed: 10/14/2004 14:10
LCSD 2004/10/14-02.10-003 Extracted: 10/14/2004 Analyzed: 10/14/2004 14:38

Compound	Conc.	mg/Kg	Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	29.5	30.7	41.3	71.4	74.0	3.8	60-130	25		
Surrogates(s)										
o-Terphenyl	17.3	17.8	20.0	86.6	89.1		60-130	0		

TEPH w/ Silica Gel Clean-up

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Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Batch QC Report

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike — **Soil** — **QC Batch # 2004/10/14-07.10**

LCS 2004/10/14-07.10-002 Extracted: 10/14/2004 Analyzed: 10/15/2004 16:11

LCSD 2004/10/14-07.10-003 Extracted: 10/14/2004 Analyzed: 10/15/2004 16:39

Compound	Conc.	mg/Kg	Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	29.6	29.2	41.3	71.4	70.4	1.4	60-130	25		
Surrogates(s)										
o-Terphenyl	16.1	15.9	20.0	80.6	79.5		60-130	0		

SEVERN TRENT STL

Submission: 2004-10-0341

TEPH w/ Silica Gel Clean-up

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Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004 18:05

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

rl

Reporting limits raised due to reduced sample size.

Result Flag

ldr

Hydrocarbon reported is in the late Diesel range, and does not match our Diesel standard

sd

Surrogate recovery not reportable due to required dilution.

Severn Trent Laboratories, Inc.
STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566
Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

SEVERN TRENT **STL**

STL Chicago
2417 Bond Street
University Park, IL 60466

Tel: 708 534 5200 Fax: 708 534 5211
www.stl-inc.com

SEVERN TRENT LABORATORIES
ANALYTICAL REPORT

JOB NUMBER: 23099/

Prepared For:

Severn Trent Laboratories
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project: STL San Francisco

Attention: Afsaneh Salimpour

Date: 10/21/2004

Bonnie Stadelmann
Signature

Name: Bonnie M. Stadelmann

Title: Project Manager

E-Mail: bstadelmann@stl-inc.com

10/21/04
Date

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX..: (708) 534-5211

This Report Contains (12) Pages

STL Chicago
PAH Case Narrative

STL San Francisco
2004-10-0341
Job #: 230997-1
PAHs

1. STL Chicago uses the following HPLC system for analysis of polynuclear aromatic hydrocarbons:

ID#	INSTRUMENT	COLUMN TYPE	DETECTOR
45	Agilent 1100	C-18 PAH	UV - 254nm
46	Agilent 1100	C-18 PAH	Fluorescence

2. This soil sample was extracted based on SW846 method 3541. All extracts were analyzed for PAHs (i.e. PNAs) based on SW846 method 8310 protocols.

3. All required holding times were met for the extraction and analysis.

4. The method blank was below the reporting limit for all target compounds.

5. The surrogate compounds used for this analysis were Decafluorobiphenyl and Benzo(e)pyrene. All surrogate recoveries were within statistical control limits except 1/10 dilution of sample, which had both surrogates diluted out and flagged "D".

6. All blank spike and blank spike duplicate recoveries and RPDs were within statistical control limits except Naphthalene, which had 45% recovery in blank spike duplicate and an RPD of 53%. Blank spike duplicate was re-analyzed with similar results. Naphthalene was not detected in this sample.

7. A matrix spike and a matrix spike duplicate were not performed on this sample.

8. All initial and continuing standard calibrations associated with this sample were in control.

9. Reporting limits are on a wet-weight basis.

Patti Gibson
Organics Section Manager

10/21/04
Date

STL Chicago is part of Severn Trent Laboratories, Inc.

SAMPLE INFORMATION
Date: 10/21/2004

Job Number.: 230997
Customer...: Severn Trent Laboratories
Attn.....: Afsaneh Salimpour

Project Number.....: 20082032
Customer Project ID....: 2004-10-0341
Project Description....: STL San Francisco

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
230997-1	SB-4303 1/2-4	Soil	10/08/2004	12:00	10/13/2004	10:10

STL Chicago is part of Severn Trent Laboratories, Inc.

LABORATORY TEST RESULTS

Job Number: 230997 Date: 10/21/2004

CUSTOMER: Severn Trent Laboratories PROJECT: 2004-10-0341 ATTN: Afsaneh Salimpour

Customer Sample ID: SB-4303 1/2-4
Date Sampled.....: 10/08/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 230997-1
Date Received.....: 10/13/2004
Time Received.....: 10:10

Test Method	Parameter/Test Description	Sample Result	Reporting Limit	Units	Date	Tech
8310	Polynuclear Aromatic Hydrocarbons (HPLC)					
	Naphthalene, 3541 Solid	ND	40	ug/Kg	10/21/04	bdw
	Acenaphthylene, 3541 Solid	ND	40	ug/Kg	10/21/04	bdw
	Acenaphthene, 3541 Solid	ND	78	ug/Kg	10/21/04	bdw
	Fluorene, 3541 Solid	ND	7.8	ug/Kg	10/21/04	bdw
	Phenanthrene, 3541 Solid	40	3.1	ug/Kg	10/21/04	bdw
	Anthracene, 3541 Solid	ND	1.6	ug/Kg	10/21/04	bdw
	Fluoranthene, 3541 Solid	60	4.0	ug/Kg	10/21/04	bdw
	Pyrene, 3541 Solid	42	7.8	ug/Kg	10/21/04	bdw
	Benzo(a)anthracene, 3541 Solid	6.5	4.0	ug/Kg	10/21/04	bdw
	Chrysene, 3541 Solid	20	4.0	ug/Kg	10/21/04	bdw
	Benzo(b)fluoranthene, 3541 Solid	14	1.6	ug/Kg	10/21/04	bdw
	Benzo(k)fluoranthene, 3541 Solid	3.7	1.6	ug/Kg	10/21/04	bdw
	Benzo(a)pyrene, 3541 Solid	4.8	4.0	ug/Kg	10/21/04	bdw
	Dibenzo(a,h)anthracene, 3541 Solid	ND	16	ug/Kg	10/21/04	bdw
	Benzo(ghi)perylene, 3541 Solid	13	6.3	ug/Kg	10/21/04	bdw
	Indeno(1,2,3-cd)pyrene, 3541 Solid	ND	40	ug/Kg	10/20/04	bdw

* In Description = Dry Wgt.

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LABORATORY CHRONICLE

Job Number: 230997 Date: 10/21/2004

CONTRACT: Severn Trent Laboratories PROJECT: 2004-10-0341 ATTN: Afsaneh Salimpour

Lab ID: 230997-1 Client ID: SB-4303 1/2-4 Date Recvd: 10/13/2004 Sample Date: 10/08/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
3541	Extraction Soxhlet (PAH)	1	131768		10/20/2004	1200	
8310	Polynuclear Aromatic Hydrocarbons (HPLC)	1	131880	131768	10/20/2004	2126	10.0000
8310	Polynuclear Aromatic Hydrocarbons (HPLC)	1	131880	131768	10/21/2004	0916	1.00000

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SURROGATE RECOVERIES REPORT

Job Number.: 230997 Report Date.: 10/21/2004

CONTRACT: Severn Trent Laboratories PROJECT: 2004-10-0341 ATTN: Afsaneh Salimpour

Method.....: Polynuclear Aromatic Hydrocarbons (HPLC) Test Matrix....: 3541 Solid Prep Batch..: 131768
Method Code...: 8310 Batch(s).....: 131880

Lab ID	DT	Sample ID	Date	BENZOE	DFB
LCD			10/20/2004	98	42
LCS			10/20/2004	92	76
MB			10/20/2004	128	67
230997- 1		SB-4303 1/2-4	10/21/2004	93	59
230997- 1	D1	SB-4303 1/2-4	10/20/2004	0 D	0 D

Test	Test Description	Limits
BENZOE	Benzo(e)pyrene	37 - 157
DFB	Decafluorobiphenyl (surr)	20 - 110

QUALITY CONTROL RESULTS

Job Number.: 230997 | Report Date.: 10/21/2004

CUSTOMER: Severn Trent Laboratories | PROJECT: 2004-10-0361 | ATTN: Afsaneh Sallimpour

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
LCD	Laboratory Control Sample Duplicate	0061WLPNAA	131768-003		10/20/2004	2045

Test Method........: 8310
Method Description.: Polynuclear Aromatic Hydrocarbons (HPLC)
Equipment Code....: INST4546
Batch.............: 131880
Analyst...: bdw

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Naphthalene, 3541 Solid	ug/Kg	59.742	102.758	133.300	42.000 U	45	%	49-112	*
						53	R	30	*
Acenaphthylene, 3541 Solid	ug/Kg	167.103	212.103	266.700	42.000 U	63	%	45-108	
						24	R	30	
Acenaphthene, 3541 Solid	ug/Kg	114.475	118.225	133.300	83.000 U	86	%	43-143	
						3	R	30	
Fluorene, 3541 Solid	ug/Kg	18.367	21.615	26.670	8.300 U	69	%	52-117	
						16	R	30	
Phenanthrene, 3541 Solid	ug/Kg	10.360	11.138	13.330	3.300 U	78	%	60-114	
						7	R	30	
Anthracene, 3541 Solid	ug/Kg	10.497	11.420	13.330	1.700 U	79	%	58-107	
						8	R	30	
Fluoranthene, 3541 Solid	ug/Kg	21.475	22.083	26.670	4.200 U	81	%	56-133	
						3	R	30	
Pyrene, 3541 Solid	ug/Kg	11.832	12.642	13.330	8.300 U	89	%	67-129	
						7	R	30	
Benzo(a)anthracene, 3541 Solid	ug/Kg	11.568	12.133	13.330	4.200 U	87	%	55-135	
						5	R	30	
Chrysene, 3541 Solid	ug/Kg	11.428	11.688	13.330	4.200 U	86	%	62-131	
						2	R	30	
Benzo(b)fluoranthene, 3541 Solid	ug/Kg	23.445	24.780	26.670	1.700 U	88	%	60-126	
						6	R	30	
Benzo(k)fluoranthene, 3541 Solid	ug/Kg	11.775	12.297	13.330	1.700 U	88	%	58-139	
						4	R	30	
Benzo(a)pyrene, 3541 Solid	ug/Kg	10.918	11.485	13.330	4.200 U	82	%	68-128	
						5	R	30	
Dibenzo(a,h)anthracene, 3541 Solid	ug/Kg	23.318	24.487	26.670	16.700 U	87	%	61-139	
						5	R	30	
Benzo(ghi)perylene, 3541 Solid	ug/Kg	22.855	23.990	26.670	6.700 U	86	%	58-140	
						5	R	30	
Indeno(1,2,3-cd)pyrene, 3541 Solid	ug/Kg	11.532	12.197	13.330	4.200 U	86	%	56-123	
						6	R	30	

 * %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 230997 | Report Date.: 10/21/2004

CUSTOMER: Severn Trent Laboratories | PROJECT: 2004-10-0361 | ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
LCS	Laboratory Control Sample	0061WLPNAA	131768-002		10/20/2004	2004

Test Method........: 8310
Method Description.: Polynuclear Aromatic Hydrocarbons (HPLC)
Equipment Code....: INST4546
Batch.............: 131880
Analyst...: bdw

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Naphthalene, 3541 Solid	ug/Kg	102.758		133.300	42.000 U	77	%	49-112	
Acenaphthylene, 3541 Solid	ug/Kg	212.103		266.700	42.000 U	80	%	45-108	
Acenaphthene, 3541 Solid	ug/Kg	118.225		133.300	83.000 U	89	%	43-143	
Fluorene, 3541 Solid	ug/Kg	21.615		26.670	8.300 U	81	%	52-117	
Phenanthrene, 3541 Solid	ug/Kg	11.138		13.330	3.300 U	84	%	60-114	
Anthracene, 3541 Solid	ug/Kg	11.420		13.330	1.700 U	86	%	58-107	
Fluoranthene, 3541 Solid	ug/Kg	22.083		26.670	4.200 U	83	%	56-133	
Pyrene, 3541 Solid	ug/Kg	12.642		13.330	8.300 U	95	%	67-129	
Benzo(a)anthracene, 3541 Solid	ug/Kg	12.133		13.330	4.200 U	91	%	55-135	
Chrysene, 3541 Solid	ug/Kg	11.688		13.330	4.200 U	88	%	62-131	
Benzo(b)fluoranthene, 3541 Solid	ug/Kg	24.780		26.670	1.700 U	93	%	60-126	
Benzo(k)fluoranthene, 3541 Solid	ug/Kg	12.297		13.330	1.700 U	92	%	58-139	
Benzo(a)pyrene, 3541 Solid	ug/Kg	11.485		13.330	4.200 U	86	%	68-128	
Dibenzo(a,h)anthracene, 3541 Solid	ug/Kg	24.487		26.670	16.700 U	92	%	61-139	
Benzo(ghi)perylene, 3541 Solid	ug/Kg	23.990		26.670	6.700 U	90	%	58-140	
Indeno(1,2,3-cd)pyrene, 3541 Solid	ug/Kg	12.197		13.330	4.200 U	91	%	56-123	

 * %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 230997 Report Date.: 10/21/2004

CUSTOMER: Severn Trent Laboratories PROJECT: 2004-10-0564 Attn:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8310 Equipment Code....: INST4946 Analyst...: bdh
Method Description.: Polynuclear Aromatic Hydrocarbons (HPLC) Batch.....: 131888

PB	Method Blank	131268-001			10/20/2004 1912	

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	#
Naphthalene, 3541 Solid	ug/Kg	42.000	U					
Acenaphthylene, 3541 Solid	ug/Kg	42.000	U					
Acenaphthene, 3541 Solid	ug/Kg	83.000	U					
Fluorene, 3541 Solid	ug/Kg	8.300	U					
Phenanthrene, 3541 Solid	ug/Kg	3.300	U					
Anthracene, 3541 Solid	ug/Kg	1.700	U					
Fluoranthene, 3541 Solid	ug/Kg	4.200	U					
Pyrene, 3541 Solid	ug/Kg	8.300	U					
Benzo(a)anthracene, 3541 Solid	ug/Kg	4.200	U					
Chrysene, 3541 Solid	ug/Kg	4.200	U					
Benzo(b)fluoranthene, 3541 Solid	ug/Kg	1.700	U					
Benzo(k)fluoranthene, 3541 Solid	ug/Kg	1.700	U					
Benzo(a)pyrene, 3541 Solid	ug/Kg	4.200	U					
Dibenzo(a,h)anthracene, 3541 Solid	ug/Kg	16.700	U					
Benzo(ghi)perylene, 3541 Solid	ug/Kg	6.700	U					
Indeno(1,2,3-cd)pyrene, 3541 Solid	ug/Kg	4.200	U					

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

[redacted]

Report Date: 10/21/2004

REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

Inorganic Qualifiers (Q-Column)

U	Analyte was not detected at or above the stated limit.
<	Not detected at or above the reporting limit.
J	Result is less than the RL, but greater than or equal to the method detection limit.
B	Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
S	Result was determined by the Method of Standard Additions.
F	AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

'	ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
*	LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
+	MSA correlation coefficient is less than 0.995.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
E	SD: Serial dilution exceeds the control limits.
H	MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
N	MS, MSD: Spike recovery exceeds the upper or lower control limits.
W	AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

U	Analyte was not detected at or above the stated limit.
ND	Compound not detected.
J	Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
Q	Result was qualitatively confirmed, but not quantified.
C	Pesticide identification was confirmed by GC/MS.
Y	The chromatographic response resembles a typical fuel pattern.
Z	The chromatographic response does not resemble a typical fuel pattern.
E	Result exceeded calibration range, secondary dilution required.
F	AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

B	MB: Batch QC is greater than reporting limit.
*	LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
'	EB1, EB2, EB3, MLE: Batch QC is greater than reporting limit
A	Concentration exceeds the instrument calibration range
e	Concentration is below the method Reporting Limit (RL)
B	Compound was found in the blank and sample.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
H	Alternate peak selection upon analytical review
I	Indicates the presence of an interference, recovery is not calculated.
M	Manually integrated compound.
P	The lower of the two values is reported when the % difference between the results of two GC columns is

greater than 25%.

Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
CV	Calibration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RT	Retention Time

RTW	Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)
UCB	Unseeded Control Blank
SSV	Second Source Verification Standard
SLCS	Solid Laboratory Control Standard(LCS)
PHC	pH Calibration Check LCSP pH Laboratory Control Sample
LCDP	pH Laboratory Control Sample Duplicate
MDPH	pH Sample Duplicate
MDFP	Flashpoint Sample Duplicate
LCFP	Flashpoint LCS
G1	Gelex Check Standard Range 0-1
G2	Gelex Check Standard Range 1-10
G3	Gelex Check Standard Range 10-100
G4	Gelex Check Standard Range 100-1000

Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. Ex. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)

Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.

230997

SEVERN TRENT **STL**

Chain of Custody

Date Shipped: 10/12/2004

2004-10-0341 - 2

From:		To:		
STL San Francisco (CL) 1220 Quarry Lane Pleasanton, CA 94566-4756		STL Chicago 2417 Bond Street University Park, IL 60466		
Project Manager:	Afsaneh Salimpour	Phone:	(708) 534-5200	Ext:
Phone: (925) 484-1919	Ext: 107	Fax:	(708) 534-5211	
Fax:	(925) 484-1096	Contact:	Bonnie Stadelmann	
Email:	aselimpour@stl-inc.com	Phone:	(708) 534-5200	Ext: 154

CL Submission #: 2004-10-0341
CL PO #:
Project #: 1756-1B
Project Name: Goble Lane

Sample ID / Analysis		Sampled	Matrix	TAT
SB-43 @ 3 1/2-4	87	10/8/2004 12:00:00AM	Soil	
Subcontract EPA 8310			8310	5 Day

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 14:45	Signature: [illegible] Time: 1400	Signature: [illegible] Time: 2300
Printed Name: Brian Thomas Date: 10/12/04	Printed Name: Date: 10-13-04	Printed Name: [illegible] Date: 10/14/04
Company: STL-SF	Company: STL-Chicago	Company: STL-Seattle
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: [illegible] Time: 1910	Signature: [illegible] Time: 1015	Signature: Time:
Printed Name: Date: 10/13/04	Printed Name: K Preslan Date: 10/14/04	Printed Name: Date:
Company:	Company: STL-Seattle	Company:

Forensic Analytical

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

STL San Francisco
Afsaneh Salimpour

1220 Quarry Ln
Pleasanton, CA 94566-4756

Client ID: 2595
Report Number: B066021
Date Received: 10/13/04
Date Analyzed: 10/20/04
Date Printed: 10/20/04
First Reported: 10/20/04

Job ID/Site: 2004-10-0341 - 1756-1B, Goble Lane

FASI Job ID: 2595-487

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
SB-25 1/2-1	10363947						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-25 3-3 1/2	10363948						
Layer: Brown Soil		Chrysotile	Trace				
Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-28 1/2 1	10363949						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-28 3-3 1/2	10363950						
Layer: Brown Soil		Chrysotile	Trace				
Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-32 2-2 1/2	10363951						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Comment: Collected on 10/08/2004							

Forensic Analytical

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

STL San Francisco
Afsaneh Salimpour

1220 Quarry Ln
Pleasanton, CA 94566-4756

Client ID: 2595
Report Number: B066021
Date Received: 10/13/04
Date Analyzed: 10/20/04
Date Printed: 10/20/04
First Reported: 10/20/04

Job ID/Site: 2004-10-0341 - 1756-1B, Goble Lane

FASI Job ID: 2595-487

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
SB-32 3 1/2 4	10363952						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-40 4 4 1/2	10363953						
Layer: Brown Soil		Chrysotile	Trace				
Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-40 5 1/2 6	10363954						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-43 3 1/2 4	10363955						
Layer: Brown Soil			ND				
Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							
SB-43 5 1/2 6	10363956						
Layer: Brown Soil		Chrysotile	Trace				
Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (Trace) Fibrous Glass (Trace) Comment: Collected on 10/08/2004							

Forensic Analytical

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

STL San Francisco
Afsaneh Salimpour

1220 Quarry Ln
Pleasanton, CA 94566-4756

Client ID: 2595
Report Number: 8066021
Date Received: 10/13/04
Date Analyzed: 10/20/04
Date Printed: 10/20/04
First Reported: 10/20/04

Job ID/Site: 2004-10-0341 - 1756-1B, Goble Lane

FASI Job ID: 2595-487

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer

James Flores, Laboratory Supervisor, Hayward Laboratory

None: Limit of Quantification (LOQ) = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = None Detected.

2595-487

SEVERN TRENT STL

Chain of Custody

Date Shipped: 10/12/2004
2004-10-0341 - 1

From

STL San Francisco (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager: Afsaneh Salimpour
Phone: (925) 484-1919 Ext: 107
Fax: (925) 484-1096
Email: asalimpour@stl-inc.com

To

Forensic Analytical - SUB CONTRACT ONLY
3777 Depot Road
Hayward, CA 94545

Phone: (510) 887-8828 Ext:
Fax: (510) 887-4218
Contact: Melissa
Phone: (510) 887-8828 Ext:

CL Submission #: 2004-10-0341
CL PO #:

Project #: 1756-1B
Project Name: Goble Lane

Client Sample ID / Analysis	Lab ID	Date Sampled	Matrix	TAT
SB-25 @ 1/2-1 Subcontract - Asbestos	17	10/8/2004 12:00:00AM	Soil	5 Day
SB-25 @ 3-3 1/2 Subcontract - Asbestos	18	10/8/2004 12:00:00AM	Soil	5 Day
SB-26 @ 1/2-1 Subcontract - Asbestos	26	10/8/2004 12:00:00AM	Soil	5 Day
SB-26 @ 3-3 1/2 Subcontract - Asbestos	27	10/8/2004 12:00:00AM	Soil	5 Day
SB-32 @ 2-2 1/2 Subcontract - Asbestos	43	10/8/2004 12:00:00AM	Soil	5 Day
SB-32 @ 3 1/2-4 Subcontract - Asbestos	44	10/8/2004 12:00:00AM	Soil	5 Day
SB-40 @ 4-4 1/2 Subcontract - Asbestos	77	10/8/2004 12:00:00AM	Soil	5 Day
SB-40 @ 5 1/2-6 Subcontract - Asbestos	78	10/8/2004 12:00:00AM	Soil	5 Day
SB-43 @ 3 1/2-4 Subcontract - Asbestos	87	10/8/2004 12:00:00AM	Soil	5 Day

RELINQUISHED BY: 1 — Signature — Time 1100 — Printed Name — Date 10/13/04 — Company STL SF

RELINQUISHED BY: 2 — Signature — Time 1150 — Printed Name — Date 10/13/04 — Company STL SF

RELINQUISHED BY: 3 — Signature — Time — Printed Name — Date — Company

RECEIVED BY — Signature — Time 1100 — Printed Name — Date — Company

RECEIVED BY: 2 — Signature — Time 1150 — Printed Name — Date 10/13/04 — Company

RECEIVED BY: 3 — Signature — Time — Printed Name — Date — Company

SEVERN TRENT STL

Chain of Custody

Date Shipped: 10/12/2004

2004-10-0341 - 1

From:		To:	
STL San Francisco (CL) 1220 Quarry Lane Pleasanton, CA 94566-4756		Forensic Analytical - SUB CONTRACT ONLY 3777 Depot Road Hayward, CA 94545	
Project Manager: Phone: (925) 484-1919	Afsaneh Salimpour Ext: 107	Phone: (510) 887-8828 Fax: (510) 887-4218	Ext:
Fax: Email:	(925) 484-1096 asalimpour@stl-inc.com	Contact: Melissa Phone: (510) 887-8828	Ext:
CL Submission #: CL PO #:	2004-10-0341	Project #: Project Name:	1755-18 Goble Lane

Client Sample ID	Matrix	Sampled	Matrix	Test
SB-43 @ 5 1/2-6	88	10/8/2004 12:00:00AM	Soil	
Subcontract Asbestos				5 Day

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Signature: Time: 1180	Signature: Time: 1150	Signature: Time:
Printed Name: Date: 10/13/04	Printed Name: Date: 10/13/04	Printed Name: Date:
Company: STL SF	Company: CT SF	Company:
RECEIVED BY: 1	**RECEIVED BY: 2**	**RECEIVED BY: 3**
Signature: Time: 1100	Signature: Time:	Signature: Time:
Printed Name: Date: 10/13/04	Printed Name: Date:	Printed Name: Date:
Company: STL SF	Company:	Company:

STL
STL San Francisco

Sample Receipt Checklist

Submission #:2004- 10 - 0341

Checklist completed by: (initials) HM Date: 10/12/04

Courier name: ☒ STL San Francisco ☐ Client ______

Custody seals intact on shipping container/samples — Yes___ No___ Not Present ✓

Chain of custody present? — Yes ✓ No___

Chain of custody signed when relinquished and received? — Yes ✓ No___

Chain of custody agrees with sample labels? — Yes ✓ No___

Samples in proper container/bottle? — Yes ✓ No___

Sample containers intact? — Yes ✓ No___

Sufficient sample volume for indicated test? — Yes ✓ No___

All samples received within holding time? — Yes ✓ No___

Container/Temp Blank temperature in compliance (2°-6°C)? Temp: 3°C — Yes ✓ No___

Potential reason for >6°C: ☐ Ice melted ☐ Ice in bags ☐ Not enough ice ☐ Not enough blue ice ☐ Samples in boxes ☐

Sampled < 6 hrs ago ☐ Ice not required (e.g. air or bulk sample) ☐ Ice Present Yes ✓ No___

Water - VOA vials have zero headspace? — No VOA vials submitted ✓ Yes___ No___

(If bubble is present, refer to approximate bubble size and itemize in comments as S (small ~O), M (medium ~ O) or L (large ~ O))

Water - pH acceptable upon receipt? ☐ Yes ☐ No

☐ pH adjusted- Preservative used: ☐ HNO₃ ☐ HCl ☐ H₂SO₄ ☐ NaOH ☐ ZnOAc -Lot #(s)

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: SB 23 @ 3-3½ on COC 2 Times Logged once.

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) ______ Date: __/__/04 Client contacted: ☐ Yes ☐ No

Summary of discussion:

Corrective Action (per PM/Client):

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

☐ Mountain View Office
405 Clyde Ave.
Mountain View 94043
Tel: 650.967.2365
Fax: 650.[illegible]

☒ Oakland Office
167 Filbert St.
Oakland 94607
Tel: 510.267.1870
Fax: 510.[illegible]

☐ Fullerton Office
251 E. Imperial Hwy. #470
Fullerton 92835
Tel: 714.441.3090
Fax: 714.441.3091

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2004-10-0341

CHAIN OF CUSTODY RECORD

Project Name: Goble Lane

Job No.: 1756-1B

Report To: Peter Langtry

Sampler (print): Veronica Tiglao

Sampler (signature): [signature]

Electronic Deliverable Format Required: ☐ YES ☒ NO

EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAP

Global ID #:

Turnaround Requirements: ☒ 5 Working Days ☐ 48 Hours ☐ 24 Hours ☐ 2-3 Hours RUSH

QC Requirement: ☒ Level A (standard)

ANALYSES REQUESTED — 89695

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: D8015/8021	TPH as diesel and motor oil (8015M) ☐ add silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: ☐8021 ☐8260 ☐add BTEX	Organochlorine Pesticides (8081)	Metals: ☐As, Pb, Hg ☐17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SS-1 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-2 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-3 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-4 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-5 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-6 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-7 @ 0 - ½	10/08/04			Soil	1		X								X				
SS-8 @ 0 - ½	10/08/04			Soil	1		X								X				
~~SB-9 @ 0 - ½~~	~~10/08/04~~			~~Soil~~	~~1~~		X								X				
SB-23 @ 0 - ½	10/08/04			Soil	1													X	
SB-23 @ ½ - 1	10/08/04			Soil	1		X												
SB-23 @ 3 - 3½	10/08/04			Soil	1													X	

Relinquished By: [signature]	Date: 10/11/04 Time: 1050	Received By: [signature]	Date: 10/11/04 Time: 1050	PM Initial:
Relinquished By: [signature]	Date: 10/11/04 Time: 1805	Received By:	Date: Time:	
Relinquished By:	Date: Time:	Lab of Record:		Temp: 3°C
		Received by Lab: [signature]	Date: 10/11/04 Time: 1805	

VKE

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CHAIN OF CUSTODY RECORD

2004-10-0341

89695

Project Name: Goble Lane
Job No.: 1756-18
Report To: Peter Langtry
Sampler (print): Veronica Tigiao
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: ☐8015/8021	TPH as diesel and motor oil (8015M) ☐add silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: ☐8021 ☐8260 ☐add BTEX	Organochlorine Pesticides (8081)	Metals: ☐As, Pb, Hg ☐17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-23 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-24 @ 0 - ½	10/08/04			Soil	1													X	
SB-24 @ ½ - 1	10/08/04			Soil	1														
SB-24 @ 3 -3 ½	10/08/04			Soil	1		X												
SB-29 @ 0 - ½	10/08/04			Soil	1													X	
SB-25 @ ½ - 1	10/08/04			Soil	1		X										X		
SB-25 @ 3 -3 ½	10/08/04			Soil	1												X		
SB-26 @ 0 - ½	10/08/04			Soil	1													X	
SB-26 @ ½ - 1	10/08/04			Soil	1														
SB-26 @ 3 -3 ½	10/08/04			Soil	1		X												
SB-27 @ 0 - ½	10/08/04			Soil	1														
SB-27 @ ½ - 1	10/08/04			Soil	1													X	
SB-27 @ 3 -3 ½	10/08/04			Soil	1		X												
SB-28 @ 0 - ½	10/08/04			Soil	1													X	
SB-28 @ ½ - 1	10/08/04			Soil	1		X												
SB-28 @ 3 -3 ½	10/08/04			Soil	1												X		
SB-28 @ 3½ - 4	10/08/04			Soil	1												X		
SB-29 @ 0 - ½	10/08/04			Soil	1													X	
SB-29 @ ½ - 1	10/08/04			Soil	1		X											X	
SB-29 @ 3 -3 ½	10/08/04			Soil	1		X												
SB-30 @ 0 - ½	10/08/04			Soil	1													X	
SB-30 @ ½ - 1	10/08/04			Soil	1		X												
SB-30 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-30 @ 3½ - 4	10/08/04			Soil	1													X	

Relinquished By:	Date: 10/11/04	Time: 1650	Received By:	Date: 10/11/04	Time: 1650
Relinquished By:	Date: 10/11/04	Time: 1805	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Lab of Record:		
			Received by Lab:	Date: 10/11/04	Time: 1805

PM Initial:
Temp: 3°c

P2&3

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CHAIN OF CUSTODY RECORD

2004-10-0341

89695

Project Name: Goble Lane
Job No.: 1756-18
Report To: Peter Langtry
Sampler (print): Veronica Tigiao
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: ☐8015/8021	TPH as diesel and motor oil (8015M) ☐add silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: ☐8021 ☐8260 ☐add BTEX	Organochlorine Pesticides (8081)	Metals: ☐As, Pb, Hg ☐17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-31 @ 0 - ½	10/08/04			Soil	1													X	
SB-31 @ ½ - 1	10/08/04			Soil	1		X												
SB-31 @ 3 -3 ½	10/08/04			Soil	1												X		
SB-31 @ 3½ - 4	10/08/04			Soil	1												X		
SB-32 @ 0 - ½	10/08/04			Soil	1													X	
SB-32 @ ½ - 1	10/08/04			Soil	1		X												
SB-32 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-32 @ 3½ - 4	10/08/04			Soil	1													X	

Relinquished By:	Date: 10/11/04	Time: 1650	Received By:	Date: 10/11/04	Time: 1810
Relinquished By:	Date: 10/11/04	Time: 1805	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Lab of Record:		
			Received by Lab:	Date: 10/11/04	Time: 1805

PM Initial:
Temp: 3°c

P 2&3

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CHAIN OF CUSTODY RECORD

2004-10-0341

89695

Project Name: Goble Lane
Job No.: 1756-18
Report To: Peter Langtry
Sampler (print): Veronica Tigno
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: 8260/8015/8021	TPH as diesel and motor oil (8015M) Silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: 8021 8260 Oxid BTEX	Organochlorine Pesticides (8081)	Metals: CAM, Pb, Hg (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-31 @ 0 - ½	10/08/04			Soil	1													X	
SB-31 @ ½ - 1	10/08/04			Soil	1													X	
SB-31 @ 2 -2 ½	10/08/04			Soil	1	X	X									X			
SB-31 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-31 @ 3½ - 4	10/08/04			Soil	1													X	
SB-32 @ 0 - ½	10/08/04			Soil	1													X	
SB-32 @ ½ - 1	10/08/04			Soil	1		X												
SB-32 @ 2 -2 ½	10/08/04			Soil	1	X	X									X	X		
SB-32 @ 3½ - 4	10/08/04			Soil	1												X		
SB-33 @ 0 - ½	10/08/04			Soil	1													X	
SB-33 @ ½ - 1	10/08/04			Soil	1		X												
SB-33 @ 2 -2 ½	10/08/04			Soil	1	X	X									X			

Relinquished By: Date: 10/8/04 Time: 850
Relinquished By: Date: 10/8/04 Time: 1805
Relinquished By: Date: Time:

Received By: Date: 10/8/04 Time: 1030 PM Initial:
Received By: Date: Time:
Lab of Record: Temp: 3°
Received by Lab: Date: 10/8/04 Time: 1805

P4 of 8

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CHAIN OF CUSTODY RECORD

2004-10-0341

89695

Project Name: Goble Lane
Job No.: 1756-18
Report To: Peter Langtry
Sampler (print): Veronica Tigno
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: 8260/8015/8021	TPH as diesel and motor oil (8015M) Silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: 8021 8260 Oxid BTEX	Organochlorine Pesticides (8081)	Metals: CAM, Pb, Hg (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-33 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-33 @ 3½ - 4	10/08/04			Soil	1													X	
SB-34 @ 0 - ½	10/08/04			Soil	1													X	
SB-34 @ 2 -2 ½	10/08/04			Soil	1	X	X									X			
SB-34 @ 3½ - 4	10/08/04			Soil	1		X												
SB-35 @ 0 - ½	10/08/04			Soil	1													X	
SB-35 @ 2 -2 ½	10/08/04			Soil	1	X	X									X			
SB-35 @ 3½ - 4	10/08/04			Soil	1		X												
SB-35 @ 4½ - 5	10/08/04			Soil	1													X	
SB-36 @ 0 - ½	10/08/04			Soil	1													X	
SB-36 @ 2 -2 ½	10/08/04			Soil	1													X	
SB-36 @ 3½ - 4	10/08/04			Soil	1													X	

Relinquished By: Date: 10/8/04 Time: 850
Relinquished By: Date: 10/8/04 Time: 1805
Relinquished By: Date: Time:

Received By: Date: 10/8/04 Time: 1030 PM Initial:
Received By: Date: Time:
Lab of Record: Temp: 3°
Received by Lab: Date: 10/8/04 Time: 1805

P5 of 8

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CHAIN OF CUSTODY RECORD

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2004-10-0341

Project Name: Goble Lane
Job No.: 1756-1B
Report To: Peter Langtry
Sampler (print): Veronica Tiglao
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED 89695

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: 8015/8021	TPH as diesel and motor oil (8015M) Silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: 8021 8260 Add'l BTEX	Organochlorine Pesticides (8081)	Metals: CAs, Pb, Hg 17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-36 @ 4 -4 ½	10/08/04			Soil	1	X	X									X			
SB-36 @ 5½ - 6	10/08/04			Soil	1	X	X									X			
SB-36 @ 7½ - 8	10/08/04			Soil	1													X	
SB-37 @ 0 - ½	10/06/04			Soil	1													X	
SB-37 @ 2 -2 ½	10/08/04			Soil	1	X	X									X			
SB-37 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-38 @ 0 - ½	10/08/04			Soil	1													X	
SB-38 @ 1½ - 2	10/08/04			Soil	1	X	X									X			
SB-38 @ 3 -3 ½	10/08/04			Soil	1													X	
SB-39 @ 0 - ½	10/06/04			Soil	1													X	
SB-39 @ 1½ - 2	10/08/04			Soil	1													X	
SB-39 @ 3½ - 4	10/08/04			Soil	1		X												

Relinquished By:	Date: 10/11/04	Time: 1055	Received By: Date: 10/11/04 Time: 1430
Relinquished By:	Date: 10/11/04	Time: 1605	Received By: Date: Time:
Relinquished By:	Date:	Time:	Lab of Record: Received by Lab: Date: 10/11/04 Time: 1805

PM Initial:
Temp: 3°C

8668

LOWNEY ASSOCIATES
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CHAIN OF CUSTODY RECORD

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2004-10-0341

Project Name: Goble Lane
Job No.: 1756-1B
Report To: Peter Langtry
Sampler (print): Veronica Tiglao
Sampler (signature):
Electronic Deliverable Format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID # :

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirement:
☒ Level A (standard)

ANALYSES REQUESTED 89695

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: 8015/8021	TPH as diesel and motor oil (8015M) Silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: 8021 8260 Add'l BTEX	Organochlorine Pesticides (8081)	Metals: CAs, Pb, Hg 17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-39 @ 5½ - 6	10/08/04			Soil	1													X	
SB-39 @ 7½ - 8	10/08/04			Soil	1													X	
SB-40 @ 0 - ½	10/06/04			Soil	1													X	
SB-40 @ 1½ - 2	10/08/04			Soil	1		X												
SB-40 @ 3½ - 4	10/08/04			Soil	1		X												
SB-40 @ 4 - 4½	10/08/04			Soil	1														
SB-40 @ 5½ - 6	10/08/04			Soil	1												X		
SB-41 @ 0 - ½	10/08/04			Soil	1												X		
SB-41 @ 5½ - 6	10/08/04			Soil	1													X	
SB-41 @ 7½ - 8	10/08/04			Soil	1		X												
SB-42 @ 0 - ½	10/08/04			Soil	1													X	
SB-42 @ 3½ - 4	10/08/04			Soil	1													X	
SB-42 @ 4 - 4½	10/08/04			Soil	1		X												

Relinquished By:	Date: 10/11/04	Time: 1555	Received By: Date: 10/11/04 Time: 1430
Relinquished By:	Date: 10/11/04	Time: 1605	Received By: Date: Time:
Relinquished By:	Date:	Time:	Lab of Record: Received by Lab: Date: 10/11/04 Time: 1805

PM Initial:
Temp: 3°C

8668

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CHAIN OF CUSTODY RECORD

2004-10-0341

89695

Project Name: Goble Lane
Job No.: 1756-1B
Report To: Peter Langtry
Sampler (print): Veronica Tirlea
Sampler (signature):
Electronic Deliverable format Required: ☐ YES ☒ NO
EDF LOGCODE: ☐ LAMV ☐ LAO ☐ LAF
Global ID #:

Turnaround Requirements
☒ 5 Working Days
☐ 48 Hours
☐ 24 Hours
☐ 2-3 Hours RUSH

QC Requirements
☒ Level A (standard)

ANALYSES REQUESTED

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPH as gas/BTEX Method: ☐8015/8021	TPH as diesel and motor oil (8015M) Bodd silica gel column	Oil and Grease	Halogenated VOCs (former 8010 list) Method: ☐8021 ☐8260 Dodd BTEX	Organochlorine Pesticides (8081)	Metals: ☐As, Pb, Hg ☐17 CAM (Filter water samples before preserve)	Chlorinated Herbicides (8151)	PAHs (8310)	PCBs (8082)	Mercury (6010/7000)	Total Lead (6010/7000)	Asbestos (PLM CARB Method w/ Point Count)	HOLD	Remarks
SB-42 @ 7½ - 8	10/08/04			Soil	1													X	
SB-43 @ 0 - ½	10/08/04			Soil	1													X	
SB-43 @ 1½ - 2	10/08/04			Soil	1		X												
SB-43 @ 3½ - 4	10/08/04			Soil	1		X						X			X	X		
SB-43 @ 5½ - 6	10/08/04			Soil	1												X		
SB-43 @ 7½ - 8	10/08/04			Soil	1													X	
SB-44 @ 0 - ½	10/08/04			Soil	1													X	
SB-44 @ 2 - 2½	10/08/04			Soil	1	X	X									X		X	
SB-44 @ 3 - 3½	10/08/04			Soil	1		X												

Relinquished By:	Date: 10/10/04	Time: 0850	Received By:	Date: 10/10/04 Time: 1050
Relinquished By:	Date: 10/11/04	Time: 1805	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Lab of Record:	
			Received by Lab:	Date: 10/11/04 Time: 1805

PM Initial:
Temp: 3°C

38E8

SEVERN TRENT STL

Submission#: 2004-11-0039

Lowney & Associates Oakland

November 04, 2004

167 Filbert Street
Oakland, Ca 94607
Attn.: Peter Langtry
Project#: 1756-1B
Project: Goble Lane

Dear Peter,

Attached is our report for your samples received on 10/11/2004 00:00
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/25/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: asalimpour@stl-inc.com

Sincerely,

Afsaneh Salimpour

Afsaneh Salimpour
Project Manager

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-31,3 1/2-4	10/08/2004	Soil	3
SB-44,3-3 1/2	10/08/2004	Soil	5

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-31,3 1/2-4	Lab ID:	2004-11-0039 - 3
Sampled:	10/08/2004	Extracted:	11/2/2004 14:03
Matrix:	Soil	QC Batch#:	2004/11/02-07.15

Analysis Flag: . (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	8.6	1.0	mg/Kg	1.00	11/04/2004 08:16	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s):	3050B	Test(s):	6010B
Sample ID:	SB-44,3-5 1/2	Lab ID:	2004-11-0039 - 5
Sampled:	10/08/2004	Extracted:	11/2/2004 14:03
Matrix:	Soil	QC Batch#:	2004/11/02-07.15

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Lead	8.9	1.0	mg/Kg	1.00	11/04/2004 08:19	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3050B
Method Blank
MB: 2004/11/02-07.15-011

Soil

Test(s): 6010B
QC Batch # 2004/11/02-07.15
Date Extracted: 11/02/2004 14:03

Compound	Conc.	RL	Unit	Analyzed	Flag
Lead	ND	1.0	mg/Kg	11/04/2004 07:19	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3050B
Laboratory Control Spike
LCS 2004/11/02-07.15-012
LCSD 2004/11/02-07.15-013

Soil

Test(s): 6010B
QC Batch # 2004/11/02-07.15
Extracted: 11/02/2004
Analyzed: 11/04/2004 07:23
Extracted: 11/02/2004
Analyzed: 11/04/2004 07:26

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Lead	99.0	101	100.0	99.0	101.0	2.0	80-120	20		

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3050B — Test(s): 6010B

Matrix Spike (MS / MSD) — **Soil** — **QC Batch # 2004/11/02-07.15**

MS/MSD — Lab ID: 2004-10-0983 - 034

MS: 2004/11/02-07.15-015 — Extracted: 11/02/2004 — Analyzed: 11/04/2004 07:31 — Dilution: 1.00

MSD: 2004/11/02-07.15-016 — Extracted: 11/02/2004 — Analyzed: 11/04/2004 07:33 — Dilution: 1.00

Compound	Conc. mg/Kg			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	mg/Kg	MS	MSD	RPD	Rec.	RPD	MS	MSD
Lead	80.3	85.7	10.7	100.0	69.6	75.0	7.5	75-125	20	M5	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Lead

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Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Legend and Notes

Analysis Flag

Result Flag

M5

MS/MSD spike recoveries were below acceptance limits.
See blank spike (LCS).

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-23,3-3 1/2	10/08/2004	Soil	1
SB-31,1/2-1	10/08/2004	Soil	2
SB-31,3 1/2-4	10/08/2004	Soil	3
SB-35,4 1/2-5	10/08/2004	Soil	4

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s): 3550/8015M
Test(s): 8015M
Sample ID: SB-23,3-3 1/2
Lab ID: 2004-11-0039 - 1
Sampled: 10/08/2004
Extracted: 11/3/2004 12:47
Matrix: Soil
QC Batch#: 2004/11/03-04.10
Analysis Flag: HT (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/03/2004 22:23	
Motor Oil	ND	50	mg/Kg	1.00	11/03/2004 22:23	
Surrogate(s)						
o-Terphenyl	88.5	60-130	%	1.00	11/03/2004 22:23	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-31,1/2-1	Lab ID:	2004-11-0039 - 2
Sampled:	10/08/2004	Extracted:	11/3/2004 12:47
Matrix:	Soil	QC Batch#:	2004/11/03-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	4.8	1.0	mg/Kg	1.00	11/04/2004 14:03	ldr
Motor Oil	80	50	mg/Kg	1.00	11/04/2004 14:03	
Surrogate(s)						
o-Terphenyl	85.2	60-130	%	1.00	11/04/2004 14:03	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-31,3 1/2-4	Lab ID:	2004-11-0039 - 3
Sampled:	10/08/2004	Extracted:	11/3/2004 12:47
Matrix:	Soil	QC Batch#:	2004/11/03-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	1.3	1.0	mg/Kg	1.00	11/03/2004 21:28	ldr
Motor Oil	ND	50	mg/Kg	1.00	11/03/2004 21:28	
Surrogate(s)						
o-Terphenyl	93.9	60-130	%	1.00	11/03/2004 21:28	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	SB-35,4 1/2-5	Lab ID:	2004-11-0039 - 4
Sampled:	10/08/2004	Extracted:	11/3/2004 12:47
Matrix:	Soil	QC Batch#:	2004/11/03-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.8	1.0	mg/Kg	1.00	11/03/2004 22:51	ldr
Motor Oil	ND	50	mg/Kg	1.00	11/03/2004 22:51	
Surrogate(s)						
o-Terphenyl	85.7	60-130	%	1.00	11/03/2004 22:51	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3550/8015M
Method Blank
MB: 2004/11/03-04.10-001

Soil

Test(s): 8015M
QC Batch # 2004/11/03-04.10
Date Extracted: 11/03/2004 12:47

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	11/03/2004 19:10	
Motor Oil	ND	50	mg/Kg	11/03/2004 19:10	
Surrogates(s)					
o-Terphenyl	86.2	60-130	%	11/03/2004 19:10	

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3550/8015M

Test(s): 8015M

Laboratory Control Spike | **Soil** | **QC Batch # 2004/11/03-04.10**

LCS 2004/11/03-04.10-002 Extracted: 11/03/2004 Analyzed: 11/03/2004 19:38
LCSD 2004/11/03-04.10-003 Extracted: 11/03/2004 Analyzed: 11/03/2004 20:05

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	33.3	33.9	41.7	79.9	82.1	2.7	60-130	25		
Surrogates(s)										
o-Terphenyl	17.8	19.1	20.0	89.0	95.4		60-130	0		

SEVERN TRENT STL

Submission: 2004-11-0039

Total Extractable Petroleum Hydrocarbons (TEPH)

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: 1756-1B
Goble Lane

Received: 10/11/2004

Legend and Notes

Analysis Flag

HT

Extracted out of holding time

Result Flag

Idr

Hydrocarbon reported is in the late Diesel range, and does not match our Diesel standard

2004-11-0039

Salimpour, Afsaneh

From: Peter M. Langtry [plangtry@downey.com]
Sent: Thursday, October 28, 2004 2:45 PM
To: Salimpour, Afsaneh
Subject: RE: Report for Submission: 2004-10-0341

Afsaneh, please add TPHd and TPHmo to the following samples

SB-23, 3-3 1/2
SB-31, 1/2 - 1
SB-31, 3 1/2 - 4
SB-35, 4 1/2 - 5

Also, please analyze the following for total lead

SB-31, 3 1/2 - 4
SB-44, 3 - 3 1/2

Thanks,

Peter

-----Original Message-----
From: Salimpour, Afsaneh [mailto:ASalimpour@stl-inc.com]
Sent: Monday, October 18, 2004 3:41 PM
To: Peter M. Langtry
Subject: Report for Submission: 2004-10-0341

From: Afsaneh Salimpour <asalimpour@stl-inc.com>

Project# : 1756-1B
Project Name: Gable Lane

This email includes reports for the following tests:

- Cover Letter
File: STLSF20041003 41-Finalreport-FRF0000384159.PDF

Please fill out and send back our electronic survey.
(File: STL Electronic Customer Survey.xls or reSurveyX.xls

Please let me know if you have any questions.

Afsaneh Salimpour
Project Manager

STL San Francisco
1220 Quarry Lane

11/2/2004

SEVERN TRENT **STL** 2004-11-0039

STL San Francisco
ADD ON/CHANGE ORDER

New Submission No.: _____

Reference No.: 95283

ORIGINAL SUBMISSION INFORMATION

Name of Caller: Pete

Bill To: _____

Client Name: Lowery Oak

Call Date: 10/28/04

Attn.: _____

Project Mgr.: Peter Langtry

Add on Due Date: 11/4

Comments: RUSH

Project Name: Gable Lane

Project No.: 1756-1B

PO#: _____

Date Received: 10/1

Submission No.: 2004-10-0341

Sample ID	Date	Time	Matrix	Preservative Type	TPH (DHA) - Gasoline ☐ 8015 ☐ Diesel ☐ 8015 ☐ MMO	Purgeable Aromatics (BTEX) EPA 602 ☐ 8021 ☐ 8260	TPH (DHA) (8015) ☐ Silica Gel Cleanup ☐ Other	Purgeable Halocarbons EPA 601 ☐ 8010 ☐ 8260	Purgeable Organics (VOC) ☐ EPA 8260 ☐ 624	Semivolatile Organics ☐ EPA 625 / 8270 ☐ 625	Oil & Grease (EPA 1664) ☐ Freon ☐ Hexane	Pesticides ☐ EPA 608 ☐ 8081 ☐ PCBs ☐ EPA 608 ☐ 8082	Filtered by ☐ 0.45u ☐ 0.1u	CAM 17 Metals (EPA 6010/7000/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Total Lead (EPA 7421/239.2)	☐ ☐ TPH (DHS LUFT) TCLP	Reactivity ☐ Cyanide ☐ Sulfide (EPA 9010 Mod. for H2S)	Ignitability ☐ TDS ☐ Corrosivity (pH)	Arsenic ☐ ☐ Ag ☐ Ba ☐ Cd ☐ Cr ☐ Pb ☐ Hg ☐ Se ☐ Ni ☐ Cu ☐ Zn	Lead			NUMBER OF CONTAINERS
SB-23, 3-3½	10/8				(12)		X																		
SB-31, ½-1					(37)		X																		
SB-31, 3½-4					(40)		X															X			
SB-35, 4½-5					(56)		X																		
SB-44, 3-3½					(92)																	X			

SEVERN TRENT STL

Submission#: 2004-11-0164

Lowney & Associates Oakland November 10, 2004

167 Filbert Street
Oakland, Ca 94607
Attn.: Peter Langtry
Project: Gople Lane

Dear Peter,

Attached is our report for your samples received on 10/11/2004 00:00
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 12/11/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: asalimpour@stl-inc.com

Sincerely,

Afsaneh Salimpour

Afsaneh Salimpour
Project Manager

SEVERN TRENT STL

Submission: 2004-11-0164

PNA analysis by 8270C/SIM GC/MS

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972
Project: Gople Lane Received: 10/11/2004

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
SB-42 @ 3 1/2-4	10/08/2004	Soil	1

SEVERN TRENT STL

Submission: 2004-11-0164

PNA analysis by 8270C/SIM GC/MS

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: Gople Lane

Received: 10/11/2004

Prep(s):	3550B/8270C-SIM	Test(s):	8270C-SIM
Sample ID:	SB-42 @ 3 1/2-4	Lab ID:	2004-11-0164 - 1
Sampled:	10/08/2004	Extracted:	11/8/2004 19:41
Matrix:	Soil	QC Batch#:	2004/11/08-01.40

Analysis Flag: L1,S2,H1 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Naphthalene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Acenaphthylene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Acenaphthene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Fluorene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Phenanthrene	960	500	ug/Kg	100.00	11/09/2004 12:45	
Anthracene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Fluoranthene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Pyrene	520	500	ug/Kg	100.00	11/09/2004 12:45	
Benzo(a)anthracene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Chrysene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Benzo(b)fluoranthene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Benzo(k)fluoranthene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Benzo(a)pyrene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Indeno(1,2,3-c,d)pyrene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Dibenzo(a,h)anthracene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Benzo(g,h,i)perylene	ND	500	ug/Kg	100.00	11/09/2004 12:45	
Surrogate(s)						
2-Fluorobiphenyl	NA	30-115	%	100.00	11/09/2004 12:45	
p-Terphenyl-d14	NA	18-137	%	100.00	11/09/2004 12:45	

SEVERN TRENT STL

Submission: 2004-11-0164

PNA analysis by 8270C/SIM GC/MS

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: Gople Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3550B/8270C-SIM		Test(s): 8270C-SIM
Method Blank	Soil	QC Batch # 2004/11/08-01.40
MB: 2004/11/08-01.40-001		Date Extracted: 11/08/2004 19:41

Compound	Conc.	RL	Unit	Analyzed	Flag
Naphthalene	ND	5.0	ug/Kg	11/09/2004 11:22	
Acenaphthylene	ND	5.0	ug/Kg	11/09/2004 11:22	
Acenaphthene	ND	5.0	ug/Kg	11/09/2004 11:22	
Fluorene	ND	5.0	ug/Kg	11/09/2004 11:22	
Phenanthrene	ND	5.0	ug/Kg	11/09/2004 11:22	
Anthracene	ND	5.0	ug/Kg	11/09/2004 11:22	
Fluoranthene	ND	5.0	ug/Kg	11/09/2004 11:22	
Pyrene	ND	5.0	ug/Kg	11/09/2004 11:22	
Benzo(a)anthracene	ND	5.0	ug/Kg	11/09/2004 11:22	
Chrysene	ND	5.0	ug/Kg	11/09/2004 11:22	
Benzo(b)fluoranthene	ND	5.0	ug/Kg	11/09/2004 11:22	
Benzo(k)fluoranthene	ND	5.0	ug/Kg	11/09/2004 11:22	
Benzo(a)pyrene	ND	5.0	ug/Kg	11/09/2004 11:22	
Indeno(1,2,3-c,d)pyrene	ND	5.0	ug/Kg	11/09/2004 11:22	
Dibenzo(a,h)anthracene	ND	5.0	ug/Kg	11/09/2004 11:22	
Benzo(g,h,i)perylene	ND	5.0	ug/Kg	11/09/2004 11:22	
Surrogates(s)					
2-Fluorobiphenyl	74.6	30-115	%	11/09/2004 11:22	
p-Terphenyl-d14	97.2	18-137	%	11/09/2004 11:22	

SEVERN TRENT STL

Submission: 2004-11-0164

PNA analysis by 8270C/SIM GC/MS

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: Gople Lane

Received: 10/11/2004

Batch QC Report

Prep(s): 3550B/8270C-SIM

Test(s): 8270C-SIM

Laboratory Control Spike **Soil** **QC Batch # 2004/11/08-01.40**

LCS 2004/11/08-01.40-002 Extracted: 11/08/2004 Analyzed: 11/09/2004 11:50

LCSD 2004/11/08-01.40-003 Extracted: 11/08/2004 Analyzed: 11/09/2004 12:17

Compound	Conc. ug/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Acenaphthene	275	291	331	83.1	87.1	4.7	50-150	30		
Phenanthrene	286	295	331	86.4	88.3	2.2	50-150	30		
Pyrene	298	301	331	90.0	90.1	0.1	50-150	30		
Chrysene	300	310	331	90.6	92.8	2.4	50-150	30		
Benzo(a)pyrene	264	272	331	79.8	81.4	2.0	50-150	30		
Surrogates(s)										
2-Fluorobiphenyl	8.51	8.83	10	85.1	88.3		30-115			
p-Terphenyl-d14	9.78	9.80	10	97.8	98.0		18-137			

SEVERN TRENT STL

Submission: 2004-11-0164

PNA analysis by 8270C/SIM GC/MS

Lowney & Associates Oakland
Attn.: Peter Langtry

167 Filbert Street
Oakland, Ca 94607
Phone: (510) 267-1970 Fax: (510) 267-1972

Project: Gople Lane

Received: 10/11/2004

Legend and Notes

Analysis Flag

H1

Extracted out of holding time.

L1

Reporting limits raised due to high level of non-target analyte materials.

S2

Surrogate(s) diluted out.

A part of Severn Trent Plc

Severn Trent Laboratories, Inc.
STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566
Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

2004-11-0164

SEVERN TRENT **STL**

STL San Francisco
ADD ON/CHANGE ORDER

New Submission No.: ____________

Reference No.: 95377

ORIGINAL SUBMISSION INFORMATION

Client Name: Lowney Oak

Project Mgr.: Peter Langtry

Project Name: Gople Lane

Project No.: ____________

PO#: ____________

Date Received: 10/11

Submission No.: 2004-10-341

Name of Caller: Veronica

Call Date: 11/4

Add on Due Date: 4-day (11/10)

Bill To: ____________

Attn.: ____________

Comments: ____________

ANALYSIS REQUEST

Sample ID	Date	Time	Mat rix	Prov. Spl. #	TPH EPA - ☐ 8015M ☐ 8260; ☐ Gas w/ ☐ BTEX ☐ MTBE	Purgeable Aromatics BTEX EPA - ☐ 8021 ☐ 8260	TEPH (EPA 8015M) ☐ Silica Gel; ☐ Diesel ☐ Motor Oil ☐ Other	Fuel Tests EPA 8260B ☐ Gas ☐ BTEX ☐ Five Oxygenates ☐ DCA, EDB ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil & Grease (EPA 1664) ☐ Petroleum ☐ Total	☐ Pesticides ☐ EPA 8081 ☐ 608; ☐ PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM 17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Low Level Metals by EPA 200.8/6020 (ICP-MS)	W.E.T (STLC) TCLP ☐ ☐	Hexavalent Chromium pH (24h hold time for H2O) ☐ ☐	Spec Cond. ☐ Alkalinity TSS ☐ TDS ☐ ☐	Anions: ☐ Cl ☐ SO4 ☐ NO3 ☐ F ☐ Br ☐ NO2 ☐ PO4	PAN/S Sim's			NUMBER OF CONTAINERS
SB-42903	11/4		Soil	83																		X			

Appendix C

GOBLE LANE MIXED-USE DEVELOPMENT DEIR

Traffic Impact Analysis
REVISED DRAFT REPORT

Prepared for:

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By

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April 19, 2005

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EXECUTIVE SUMMARY

This report provides an evaluation of traffic and transportation issues related to the proposed 29.5-acre mixed-use development site located at the southwest corner of Monterey Road and Goble Lane (2745 Monterey Road) in the City of San Jose, California. The project site is currently developed with industrial and commercial uses and a 54-unit mobile home park (Redwood Mobile Home Park).

The proposed project site is bounded by Chateau La Salle Mobile Home Park to the north, the Raisch Products asphalt recycling plant to the south, Monterey Road to the east, and the Union Pacific railroad tracks to the west. The project study area is bounded by Willow Street to the north, Senter Road to the south, Lincoln Avenue to the west, and Capitol Expressway to the east.

This report provides a general description of the transportation facilities in the project vicinity and summarizes existing and future condition within the study area. Particular attention is given to impacts on vehicular, transit bicycle and pedestrian facilities.

For the purpose of this study, the following was considered:

- ***Project Description:*** The project proposes to demolish the existing structures on the site and construct a 2.0-acre public park, up to 18,000 square feet of retail use and 969 dwelling units (320 market rate apartments, 522 condominiums/townhouses and 127 single-family dwelling units). This project description is hereafter referred to as the Goble Lane Project.

A maximum of 7,492 daily trips, including 717 A.M. peak hour trips (253 inbound, 464 outbound) and 745 P.M. peak hour trips (479 inbound, 266 outbound) would be generated by the proposed Goble Lane project.

Under the City of San Jose and the Santa Clara County Congestion Management Program (CMP) traffic impact analysis guidelines, the proposed project would not result in any significant transportation impacts at the study intersections.

The proposed development would provide a total of 1,992 parking spaces (A total of 1,587 covered parking spaces and 405 on-street (open) parking spaces). With the provision of 1,992 parking spaces, the proposed mixed-use development project would satisfy the City of San Jose Parking Space Standards.

A left-turn storage analysis was conducted at 14 intersections that would potentially be impacted by the proposed development. The majority of these intersections currently have left-turn bays with inadequate storage space for the vehicle queues. The analysis indicated that the proposed development would add 3 to 9 vehicles at existing deficient left-turn pockets.

The proposed project would result in significant impacts on nearby freeway segments. The addition of project-generated traffic would result in an increase of more than 1% of capacity for the freeway segments below:

- SR 87 between Curtner Avenue and Almaden Expressway
- SR 87 between Almaden Expressway and Alma Avenue
- US 101 between Tully Road and Story Road

1.0 INTRODUCTION

This report provides an evaluation of traffic and transportation issues related to the proposed 29.5-acre mixed-use development site located at the southwest corner of Monterey Road and Goble Lane (2745 Monterey Road) in the City of San Jose, California. The project site is currently developed with industrial and commercial uses and a 54-unit mobile home park (Redwood Mobile Home Park).

The proposed project site is bounded by Chateau La Salle Mobile Home Park to the north, the Raisch Products asphalt recycling plant to the south, Monterey Road to the east, and the Union Pacific railroad tracks to the west. The project study area is bounded by Willow Street to the north, Senter Road to the south, Lincoln Avenue to the west, and Capitol Expressway to the east.

The site location and the surrounding roadway network are illustrated in **Figure 1**.

The proposed development consists of a 2.0-acre public park, up to 18,000 square feet of retail use and 969 dwelling units (320 market-rate apartments, 522 condominiums-townhouses and 127 single-family dwelling units). Vehicular access to the site would be provided via two driveways. The northern driveway would provide right-turn in, right-turn out only. The southern driveway would provide full access via a new traffic signal at Monterey Road and the southerly project entrance. The project site plan is illustrated in **Figure 2**.

The transportation analysis represented in this study follows review and incorporation, where appropriate, of data from the following transportation studies of the City of San Jose:

- Tully Road Medical Office TIA - Final Report. DKS Associates.
- Venetian Terrace Residential TIA. Hexagon Transportation Consultants, Inc.
- Paloma Centre Development TIA. Hexagon Transportation Consultants, Inc.
- GE Monterey Road Site TIA. Hexagon Transportation Consultants, Inc.

In addition, data provided in this report are based on recent correspondence and conversations with staff of the City of San Jose and site visits conducted in October 2004.

The report analyzes the traffic conditions during the weekday A.M. and P.M. peak hours for study area intersections. The impacts of the proposed development were estimated using the level of service methodologies set forth by both the City of San Jose and the Santa Clara County Congestion Management Program (CMP).

Based on consultation with City of San Jose staff, the following 42 intersection were analyzed as part of the City of San Jose traffic impact analysis, including twelve (12) intersections that are part of the Santa Clara County Congestion Management Program.

1. First Street & Willow Street*
2. First Street & Keyes Street*

3. Second Street & Keyes Street
4. First Street & Second Street
5. Monterey Highway & Alma Avenue*
6. Seventh Street & Alma Avenue
7. Tenth Street & Alma Avenue
8. Senter Road & Alma Avenue
9. Monterey Highway & San Jose Avenue
10. Monterey Highway & Phelan Avenue
11. Tenth Street & Phelan Avenue
12. Monterey Highway & Stauffer Boulevard
13. Lincoln Avenue & Curtner Avenue
14. Almaden Road & Curtner Avenue
15. Almaden Expressway & Curtner Avenue
16. Canoas Garden Avenue & Curtner Avenue
17. State Route 87 SB on/off ramp & Curtner Avenue
18. State Route 87 NB on/off & Curtner Avenue
19. Stone Avenue & Curtner Avenue
20. Little Orchard Street & Curtner Avenue
21. General Electric & Curtner Avenue
22. Monterey Highway & Curtner Avenue – Tully Road*
23. Monterey Highway & Old Tully Road*
24. Seventh Street & Tully Road
25. Tenth Street & Tully Road
26. Senter Road Street & Tully Road*
27. Lucretia Avenue & Tully Road
28. McLaughlin Avenue & Tully Road*
29. Lanai Avenue – Alvin Avenue & Tully Road
30. King Road & Tully Road
31. Quimby & Tully Road
32. Capitol Expressway & Tully Road
33. Monterey Highway & Umbarger Road
34. Senter Road & Umbarger Road
35. Monterey Highway & Lewis Road
36. Senter Road & Lewis Road
37. Monterey Highway & Capitol Expressway WB on/off ramp*
38. Monterey Highway & Capitol Expressway EB on/off ramp*
39. Monterey Highway & Senter Road*
40. Senter Road & Capitol Expressway*
41. McLaughlin Avenue & Capitol Expressway*

A. Monterey Highway & Project Site Entrance (Project Condition only)

* CMP Intersection

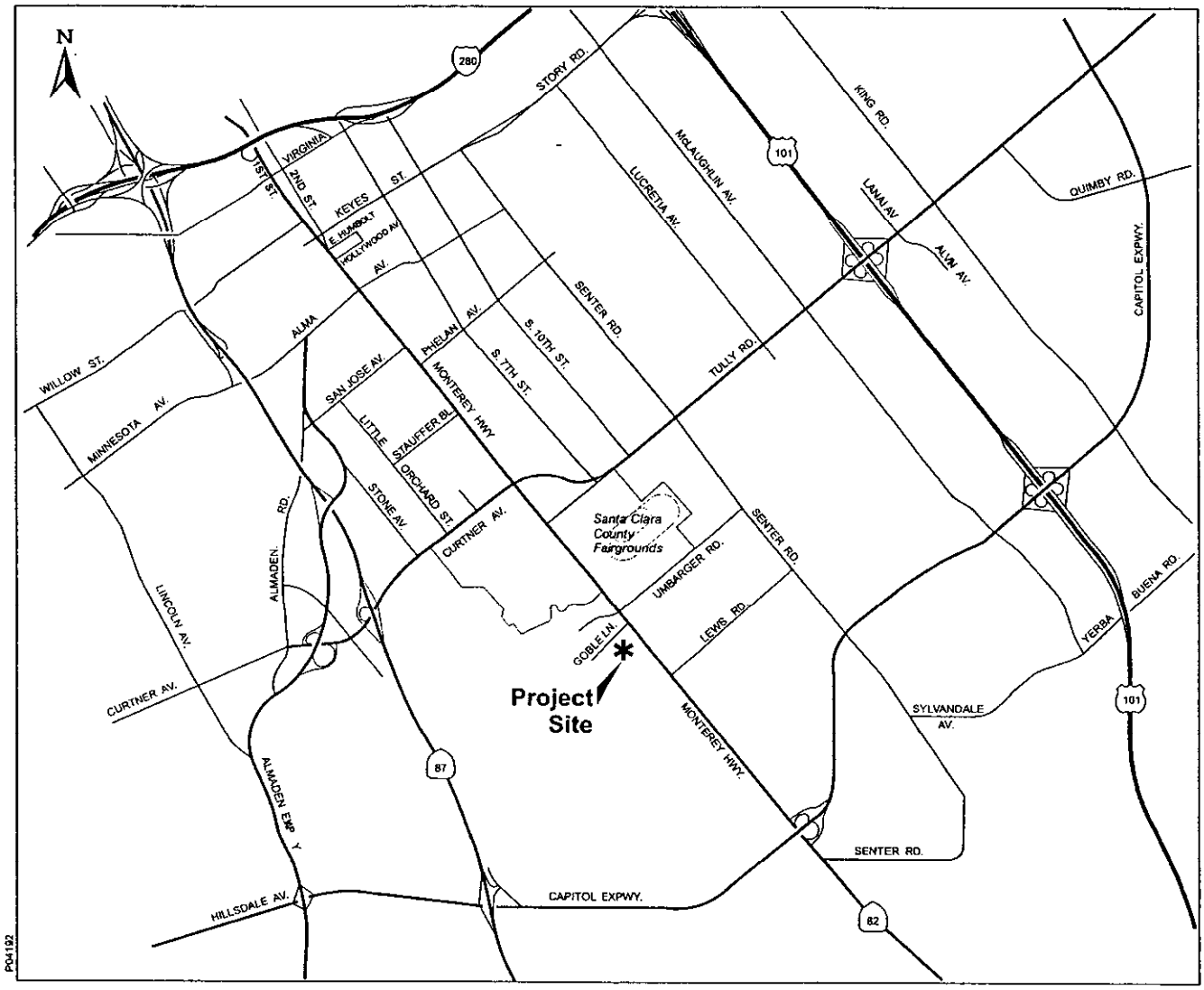

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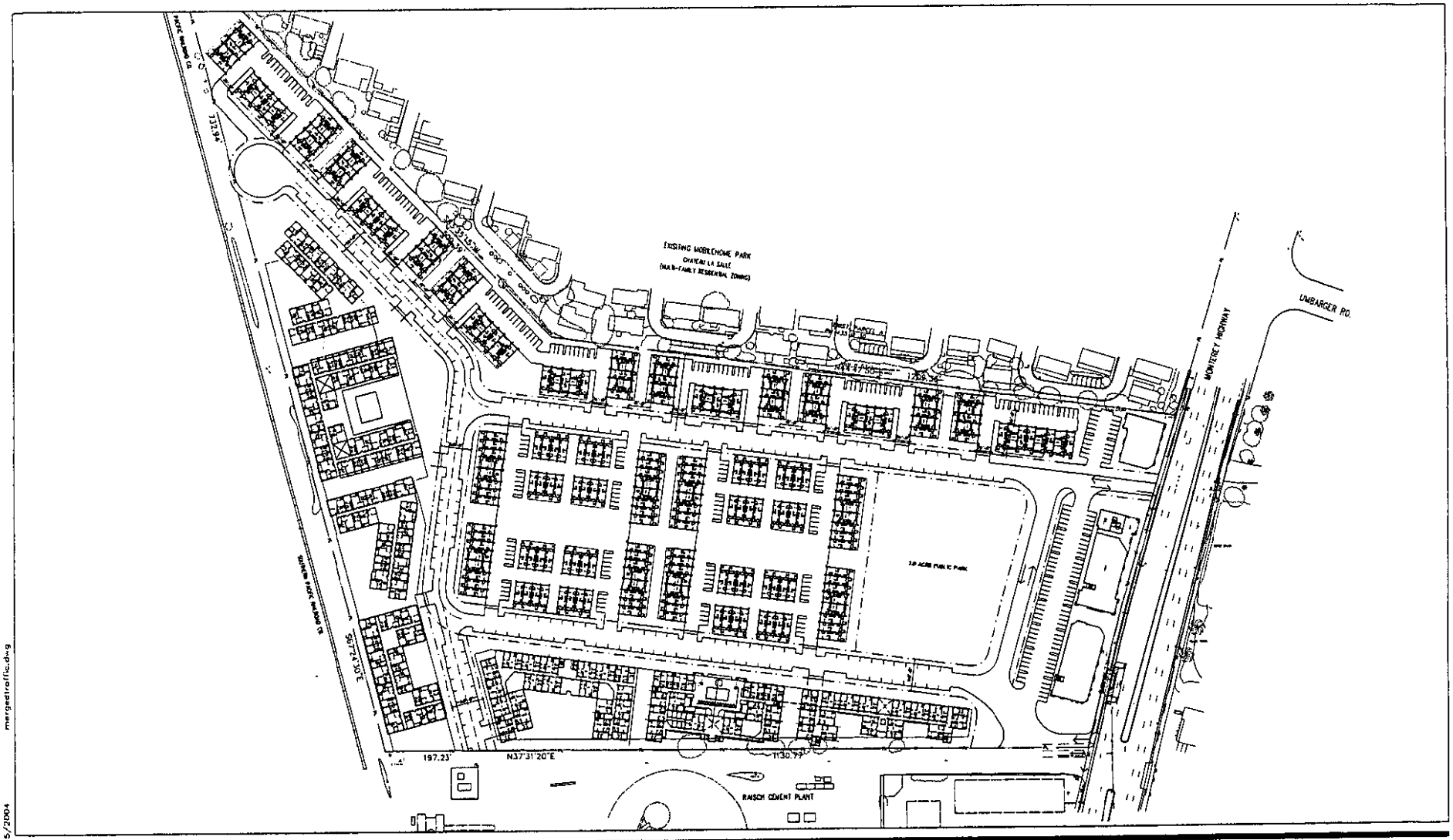
Figure 1
Project Site and Roadway Network



mergedtraffic.dwg

1/15/2004

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GENERAL DEVELOPMENT PLAN

MONTECITO VISTA PROJECT
MONTEREY ROAD - SAN JOSE - CALIFORNIA

REVISION :	DATE	
		SCALE :
		DATE :
		PROJECT :
SHEET TITLE :		SHEET :

SITE PLAN

The operation of these intersections was evaluated for the following scenarios:

Scenario 1: Existing Condition – Level of service based on existing peak-hour volumes.

Scenario 2: Background Condition – Existing peak-hour volumes plus growth from approved, but not yet constructed, developments in the vicinity of the proposed project that would occur prior to the completed construction of the proposed mixed-used development project.

Scenario 3: Project Condition – Background peak-hour volumes plus project-generated traffic estimated for the mixed-use development project.

Scenario 4: Cumulative Condition – Project peak-hour volumes plus traffic generated by pending developments in the vicinity of the project.

Traffic-related impacts along the nearby freeways were also analyzed as part of the Congestion Management Program analysis. Freeway segments analyzed include:

- SR 87 between Curtner Avenue and I-280
- SR 87 between Curtner Avenue and SR 85
- I-280 between SR 87 and Tenth Street
- I-280 between Tenth Street & US 101
- US 101 between Story Road and Tully Road
- US 101 between Tully Road and Capitol Expressway
- US 101 between Capitol Expressway and Yerba Buena Road

In addition to intersection and freeway operation analysis, a left-turn queue and storage analysis has been conducted at left-turn pockets where stacking from the project would potentially be significant. A capacity analysis for the roadway segment along Tully Road between Monterey Road and Tenth Street was also performed to identify traffic flow constraints/deficiencies due to roadway alignment.

An evaluation of the site plan, on-site circulation, locations of public schools, access and egress points, Raisch driveway access, proposed parking supply and expected demand is also contained in this report.

The following section presents existing conditions on various transportation system components. The components include roadways, intersections, truck access and circulation for the Raisch site, transit service, bicycle facilities, pedestrian circulation and parking.

2.0 CITY OF SAN JOSE – TRAFFIC IMPACT ANALYSIS

A description of the existing transportation system facilities in terms of the roadway network facilities, intersections, transit service, bicycles, pedestrians and parking is provided below.

2.1 EXISTING TRANSPORTATION SYSTEM CONDITIONS

2.1.1 Roadway Network

Regional access to the project area is provided by State Route 87 (SR 87), U.S. Highway 101 (US 101), Monterey Highway (SR 82), Capitol Expressway and Curtner Avenue - Tully Road.

Descriptions of regional and local roadways are provided below.

U.S. Highway 101 (US-101) – This facility extends from Los Angeles, in the south, to the Oregon state border, in the north. In the vicinity of the project, US-101 runs in the north--south direction, and includes three mixed-flow lanes and one high occupancy vehicle lane in each direction of travel. US-101 provides access to the project study area with its interchanges with Capitol Expressway, Tully Road and at I-280/I-680 interchange.

State Route 87 (SR-87) is a four-lane facility extending from SR-85 in south San Jose to US-101 north of San Jose Airport. Access to the project study area from SR-87 is provided via its interchanges at Curtner Avenue, Capitol Expressway and Alma Avenue. State Route 87 has a posted speed limit of 65 mph.

Monterey Highway (SR-82) is a four- to six-lane limited access roadway; it extends from US-101 at the south end of Gilroy to its terminus at Alma Avenue in San Jose where it becomes First Street. Adjacent to the project site, Monterey Highway is also designated as SR-82 and includes three lanes in each direction and signalized intersections at Umbarger Road and Lewis Road. Monterey Highway has a posted speed limit of 50 mph south of Capitol Expressway, a posted speed limit of 45 mph south of Tully Road and a 40 mph speed limit north of Tully Road.

Capitol Expressway is a six-lane limited access facility with a grade-separated interchange at Monterey Highway (SR-82). It extends between I-680 to the north and Almaden Expressway to the south, in San Jose. West of Almaden Expressway, Capitol Expressway becomes Hillsdale Avenue. In the vicinity of the project, Capitol Expressway runs in the east/west direction and has a posted speed limit of 45 mph.

Tully Road-Curtner Avenue is a two- to six-lane arterial with an east-west direction. It provides two lanes in the westbound direction of Seventh Street-Old Tully Road, and three lanes in the eastbound direction. It extends from Klein Road in the east, to its terminus with Monterey Highway in the west, where it becomes Curtner Avenue. Curtner Avenue is a four-lane roadway extending to Camden Avenue near Highway 17. East of Almaden Road Curtner has a posted speed limit of 40 mph; west of Almaden Road the posted speed limit is 35 mph.

LOCAL ACCESS

Local access is provided by Willow Street, Alma Avenue, Senter Road, Tenth Street, Seventh Street, McLaughlin Avenue, Umbarger Road and Lewis Road. These roadways are described below:

Willow Street is a two-lane local street with an east-west direction located north of the project site. It extends from First Street in the east, to its terminus just west of Meridian Avenue. Willow Street has a posted speed limit of 25 mph.

Keyes Street is a four-lane local street with an east-west direction located north of the project site. It extends from Monterey Road in the west, to its terminus with McLaughlin Avenue in the west, where it becomes Story Road. Keyes Street has a posted speed limit of 25 mph in the vicinity of the project.

Alma Avenue is a four-lane local street with an east-west direction located north of the project site. It extends from Senter Road in the east, to its terminus with SR-87 in the west, where it becomes Minnesota Avenue. Alma Avenue has a posted speed limit of 35 mph.

Senter Road is a four-lane major roadway with a north-south direction, located east of the project site. It extends from Keyes Street in the north to Monterey Highway in the south. Senter Road includes a center two-way left-turn lane from between Lewis Road and Umbarger Road to north of Alma Avenue. Senter Road has a posted speed limit of 40 mph.

South 10th Street is a two- to four-lane roadway with a north-south direction, located east to the project site. It extends from Old-Bayshore highway in the north to its terminus at Tully Road. 10th Street operates in one-way direction southbound between Hedding Street in the north to Humbolt Street in the south. South of Humbolt Street, Tenth Street includes two lanes in each direction. Tenth Street has a posted speed limit of 35 mph.

South 7th Street is a two-lane local street with a north-south direction, located east of the project site. It extends from Commercial Street in the north to its terminus at Tully Road. The south leg of the Seventh Street/Tully Road intersection is Old Tully Road. Seventh Street is closed to thru-traffic between its intersection with San Fernando Street and San Salvador Street, in the vicinity of San Jose State University. Seventh Street has a posted speed limit of 35 mph.

McLaughlin Avenue is a two- to four-lane major arterial, with a north-south direction. It runs parallel to US-101 and extends from Williams Street in the north to Tuers Road in the south near Yerba Buena Road. McLaughlin Avenue has a posted speed limit of 35 mph.

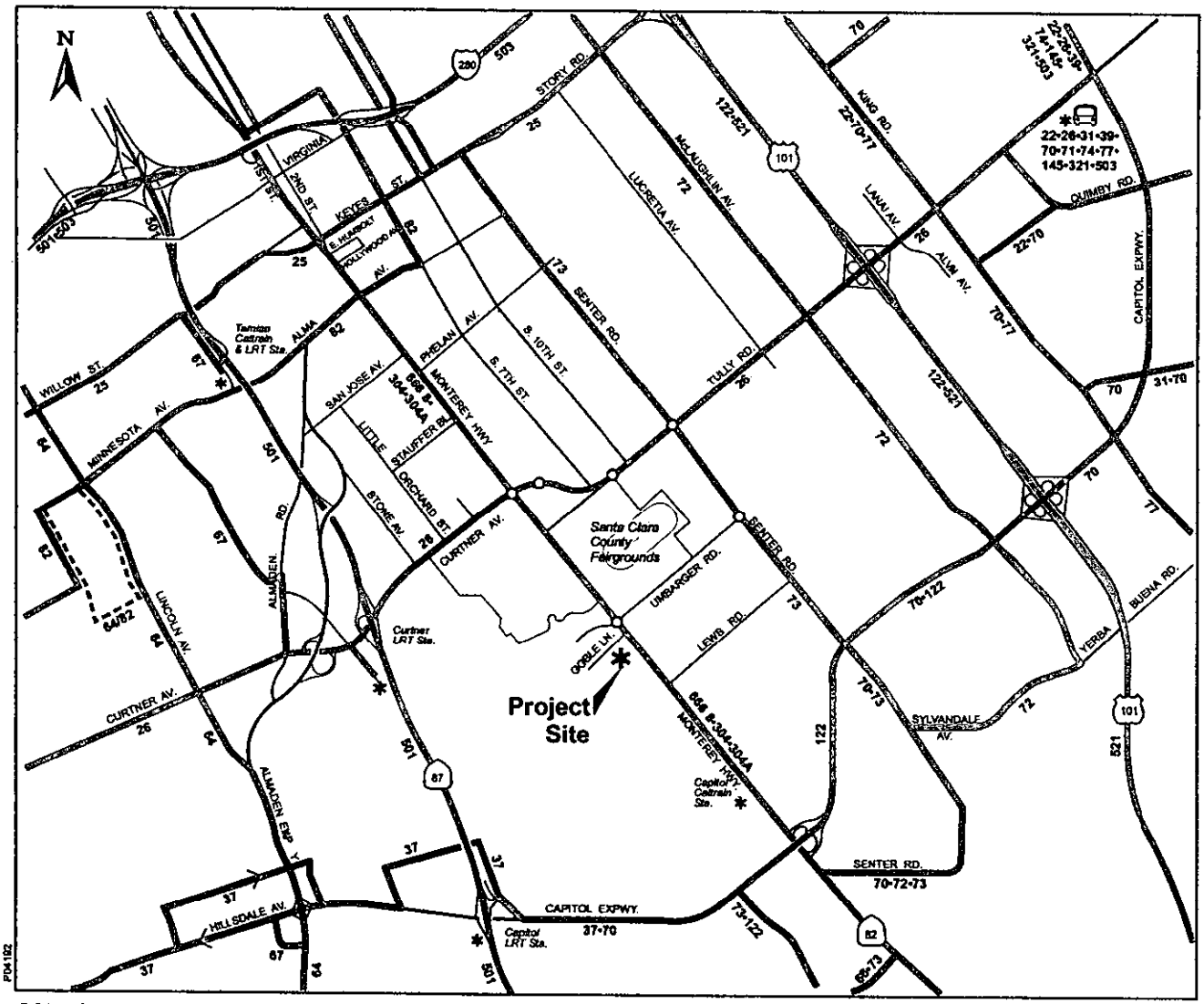
Umbarger Road is a two-lane minor street with an east-west direction. It runs from Monterey Highway in the west to Senter Road in the east. Abutting land uses are commercial and residential developments. Umbarger Road provides a number of vehicle access points to the Santa Clara County Fairgrounds property. Umbarger Road has a posted speed limit of 35 mph.

Lewis Road is a two-lane minor street with an east-west direction. It runs from Monterey Highway in the west to Senter Road in the east. Abutting land uses are primarily residential developments, except for commercial land uses along Monterey Highway. Lewis Road has a posted speed limit of 35 mph.

2.1.2 Transit Service

The Santa Clara County Valley Transportation Authority (VTA) has jurisdiction over public transit in Santa Clara County. Santa Clara County VTA currently operates five local bus routes within the vicinity of the proposed project. The VTA bus routes that would mostly be used as single or connecting routes are Routes 26, 66, 68, 73, 304/305.

Figure 3 illustrates the transit facilities within the project area.



SOURCE: Santa Clara Valley Transportation Authority, Santa Clara Valley Bus and Rail Map, January 2001

Bus Routes
Transit Center
Caltrain
LRT
Station
Park and Ride Lot

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Figure 3
Transit Facilities

Route 26. This route provides service from Eastridge Mall in east San Jose to the Lockheed Martin development in the City of Sunnyvale. Weekday service is provided between 5:30 a.m. and 9:30 p.m. in the eastbound direction, at 20-minute headways during the peak periods (7:00 a.m. – 9:00 a.m. and 4:00 p.m. - 6:00 p.m.) and at 30- to 60-minute headways during other times. In the westbound direction, service is provided between 5:00 a.m. and 10:30 p.m., at 20-minute headways during the peak periods (7:00 a.m. – 9:00 a.m. and 4:00 p.m. - 6:00 p.m.) and at 30- to 60-minute headways during other times. Weekend service is provided at 30- to 60- minute headways between 7:00 a.m. and 9:30 p.m. Route 26 travels along Tully Road in the vicinity of the project.

Route 66. This route provides service between Santa Teresa Hospital and the City of Milpitas. Weekday service is provided in the northbound direction between 5:00 a.m. and 10:20 p.m. at 15-minute peak period headways, while off-peak headways vary between 30 and 60 minutes. In the southbound direction, service is provided from 5:00 a.m. to 10:45 p.m. at 20-minute peak period headways. Weekend service is provided between 5:30 a.m. and 10:45 p.m. at 30 to 60-minute headways. Route 66 travels along Monterey Road in the vicinity of the project, with transit stops located immediately across the project site and just south of the project site entrance, near the Car Care Shopping Center. Other transit stops are located at the intersections of Monterey Road/Umbarger Road and Monterey Road/Lewis Road and within walking distance from the project site.

Route 68. This route provides service from Gilroy/Gavilan College in the City of Gilroy to the San Jose Caltrain Station. It operates during the weekday hours of 4:15 a.m. to 10:00 p.m. in the northbound direction at 20-30 minutes headways. In the southbound direction, service is provided from 5:00 a.m. to midnight at 15 to 20-minute headways. Off-peak headways are 30 to 60 minutes. On weekends, Route 68 operates at 30- to 60-minute headways between 5:45 a.m. and 12:30 a.m. on weekends. Route 68 travels along Monterey Highway in the vicinity of the project, with transit stops located immediately across the project site and just south of the project site entrance, near the Car Care Shopping Center. Other transit stops are located at the intersections of Monterey Road/Umbarger Road and Monterey Road/Lewis Road and within walking distance from the project site.

Route 304 and Route 305. Route 304 and Route 305 are limited stop routes that operate during the peak periods on weekdays only and link South San Jose to the Caltrain Station in the City of Mountain View. Both routes travel on Monterey Highway in the vicinity of the project site and include stops at the intersections of Monterey Road/Umbarger Road and Monterey Road/Lewis Road and Curtner Avenue-Tully Road. Route 304 operates on 15- to 30- minute headways, while Route 34A provides hourly service during the peak periods.

Route 73. This route provides service between downtown San Jose and the Snell/Capitol Intersection. It operates between 5:00 a.m. and 10:00 p.m. at 15-minute headways during the day and at 30- to 60- minute headways after 6:00 p.m. Weekend service is provided hourly between 7:00 a.m. and 8:00 p.m. Route 73 travels along Senter Road in the vicinity of the project.

2.1.3 Bicycle and Pedestrian Facilities

The 2002 Santa Clara County Bikeways Map indicates bicycle facilities in the vicinity of the project. The existing system consists of three classifications of bicycle facilities:

- Class I facilities (bike path) – are completely separated, with paved right of way (shared with pedestrians) which excludes general motor vehicle traffic.
- Class II facilities (bike lane) – a striped lane for one-way bike travel on a roadway.
- Class III facilities (bike route) – typically a street with low traffic volumes and speeds, with measures for preferential bike treatment.

The bicycle facilities map identifies Seventh Street (north of Tully Road), Tully Road-Curtner Avenue (between Leigh Ave and Quimby Rd), Monterey Highway (south of Tully Road), Senter Road and Capitol Expressway, as major roadways that include Class II bike lanes, respectively. Tenth Street is a designated bike route from Hedding St. to Tully Road. Class I bike paths also exist along the Guadalupe Expressway trail, located north and south of Curtner Avenue. Bicycles are also permitted along Capitol Expressway and Almaden Expressway.

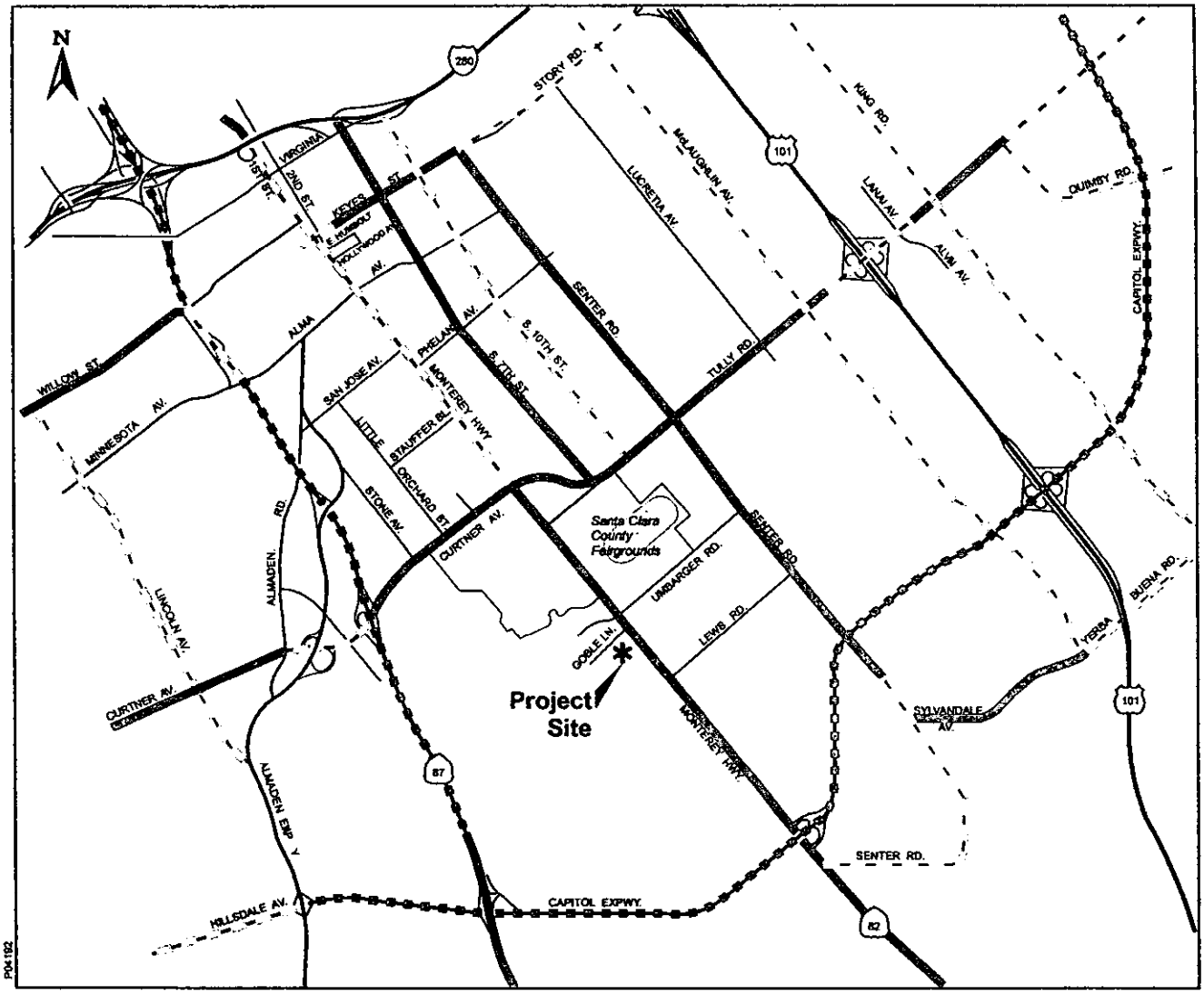
The Bikeways Map also illustrates a number of "rated streets". Rated streets are "streets frequently used by bicyclist, where they share the roadway with motor or merging with motor vehicles. These include city-designated Class III bike routes. Street ratings are based on the following types of characteristics"[1]:

- Extreme Caution: Heavy traffic volumes; High traffic speeds at or greater than 35 mph; high number of motor vehicles turning right or merging across bicyclist path of travel.
- Alert: Moderate traffic volumes; Moderate traffic speeds; Medium-width travel area for bicycles (shoulders or curb lanes; Low to moderate number of motor vehicles turning right or merging across bicyclist path of travel; Moderate to high parking turnover; somewhere in between Extreme Caution and Moderate.
- Moderate: Low traffic volumes; Moderate to low traffic speeds; Wide travel area for bicycles (shoulders or curb lanes); Low parking turnover or no curbside parking.

The bicycle facilities map identifies Tenth Street (north of Tully Road), Monterey Highway (south of Tully Road), Lincoln Avenue, McLaughlin Avenue, and King Road as "extreme caution" streets.

Figure 4 illustrates the location of bicycle facilities in the vicinity of the project.

[1] Santa Clara Valley Transportation Authority. Bikeways Map. September 2002.



SOURCE: Santa Clara County, Bikeways Map, Sept. 2002

- Bike Lanes
- Extreme Caution Street
- Bike Path
- Expressway

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Figure 4
Bicycle Facilities

Pedestrian facilities within the vicinity of the site include sidewalks, crosswalks and pedestrian signals. Crosswalks and pedestrian signals at all of the signalized intersections accommodate pedestrian movements within the immediate vicinity of the project. Sidewalks are provided on both sides of Monterey Highway adjacent to the project site.

2.1.4 Public Schools

The proposed project site is located within the Franklin McKinley School District for elementary and middle schools and the East Side Union High School District for high schools.

Elementary and Middle Schools

Franklin Elementary School (K-6) is located at 420 Tully Road, approximately two miles north of the proposed site. Dahl Elementary School (K-6) is located at 3200 Water Street, approximately one mile south of the proposed site.

A future school (K-8) site is located on Lewis Road just west of Monterey Highway. This new school would be the closest to the proposed project.

Other elementary schools and middle schools within the study area that would potentially serve the proposed project site are:

- Shirakawa Elementary School (K-8)
- Stonegate Elementary School (K-6)
- Los Arboles Elementary School (K-6)
- Seven Trees Elementary School (K-6)
- Sylvandale Middle School (7-8)
- Hellyer Elementary School (K-6)
- Windmill Springs Elementary School (K-8)
- J. Meadows Elementary School (K-6)
- Fair Middle School (7-8)
- Santee Elementary School (K-6)
- Kennedy Elementary School (K-6)

High Schools

The proposed site is located within the attendance area for Andrew Hill High School. Andrew Hill High School is located at 3200 Senter Road approximately 1.5 miles east of the proposed site.

2.2 INTERSECTION LEVEL OF SERVICE

To evaluate the existing traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the street system, the intersection Level of Service (LOS) was evaluated at the identified study intersections.

2.2.1 Intersection Level of Service Methodology

The City of San Jose designated intersection level of service software analysis program is *TRAFFIX*. *TRAFFIX* evaluates signalized intersection operation on the basis of average stopped delay for all vehicles at the intersection. The analysis uses procedures from the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections.

2.2.2 Level of Service Definition

The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of roadway performance. Level of Service can range from "A" representing free-flow conditions, to "F" representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for a peak hour in urban areas, with average delays in the range of 35 to 55 seconds. LOS E is approaching capacity and LOS F represents conditions at or above capacity, with average delays over 80 seconds.

Since TRAFFIX is also the CMP-designated intersection Level of Service software analysis program the City of San Jose methodology embodies the CMP default values for the analysis parameters. The correlation between average control delay and level of service is contained in **Table 1**.

TABLE 1
Signalized Intersection LOS Thresholds

Level of Service	Average Stopped Delay (seconds/vehicle)	Description
A	Delay ≤ 10.0.0	Free flow; minimal to no delay
B+ B B-	10.0 < Delay ≤ 12.0 12.0 < Delay ≤ 18.0 18.0 < Delay ≤ 20.0	Stable flow, but speeds are beginning to be restricted by traffic condition; slight delays.
C+ C C-	20.0 < Delay ≤ 23.0 23.0 < Delay ≤ 32.0 32.0 < Delay ≤ 35.0	Stable flow, but most drivers cannot select their own speeds and feel somewhat restricted; acceptable delays.
D+ D D-	35.0 < Delay ≤ 39.0 39.0 < Delay ≤ 51.0 51.0 < Delay ≤ 55.0	Approaching unstable flow, and drivers have difficulty maneuvering; tolerable delays.
E+ E E-	55.0 < Delay ≤ 60.0 60.0 < Delay ≤ 75.0 75.0 < Delay ≤ 80.0	Unstable flow with stop and go; delays
F	Delay > 80.0	Total breakdown; congested conditions with excessive delays.

Source: Santa Clara County Congestion Management Program – Traffic Level of Service Guidelines. June 2003

2.2.3 Standards of Significance

Based on the City of San Jose level of service standards, an acceptable operating level of service (LOS) is defined as LOS D or better at all signalized intersections and on principal arterials in the CMP during the peak hours.

2.3 EXISTING CONDITION

The City of San Jose provided A.M. peak hour and P.M. peak hour intersection level of service calculations for each of the 41 existing study intersections under the "existing" condition. To supplement data provided by City of San Jose staff, DKS recently conducted new weekday intersection turning movement counts at the following intersections:

- First Street & Second Street
- Seventh Street & Alma Avenue - A.M. peak only
- Tenth Street & Alma Avenue
- Monterey Highway & San Jose Avenue
- Monterey Highway & Phelan Avenue
- Tenth Street & Phelan Avenue - A.M. peak only
- Monterey Highway & Stauffer Boulevard
- Canoas Garden Avenue & Curtner Avenue
- State Route 87 SB on/off ramp & Curtner Avenue
- Little Orchard Street & Curtner Avenue
- General Electric & Curtner Avenue
- Monterey Highway & Umbarger Road
- Monterey Highway & Raisch Driveway – Truck vehicles only

Figure 5 illustrates the current lane geometry and traffic control at each of the study intersections. **Figure 6** illustrates the existing traffic volumes at each study intersection. The intersections and their corresponding existing levels of service are presented in **Table 2**.

Appendix A includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours. **Appendix B** includes the recent weekday traffic counts at the intersection listed above.

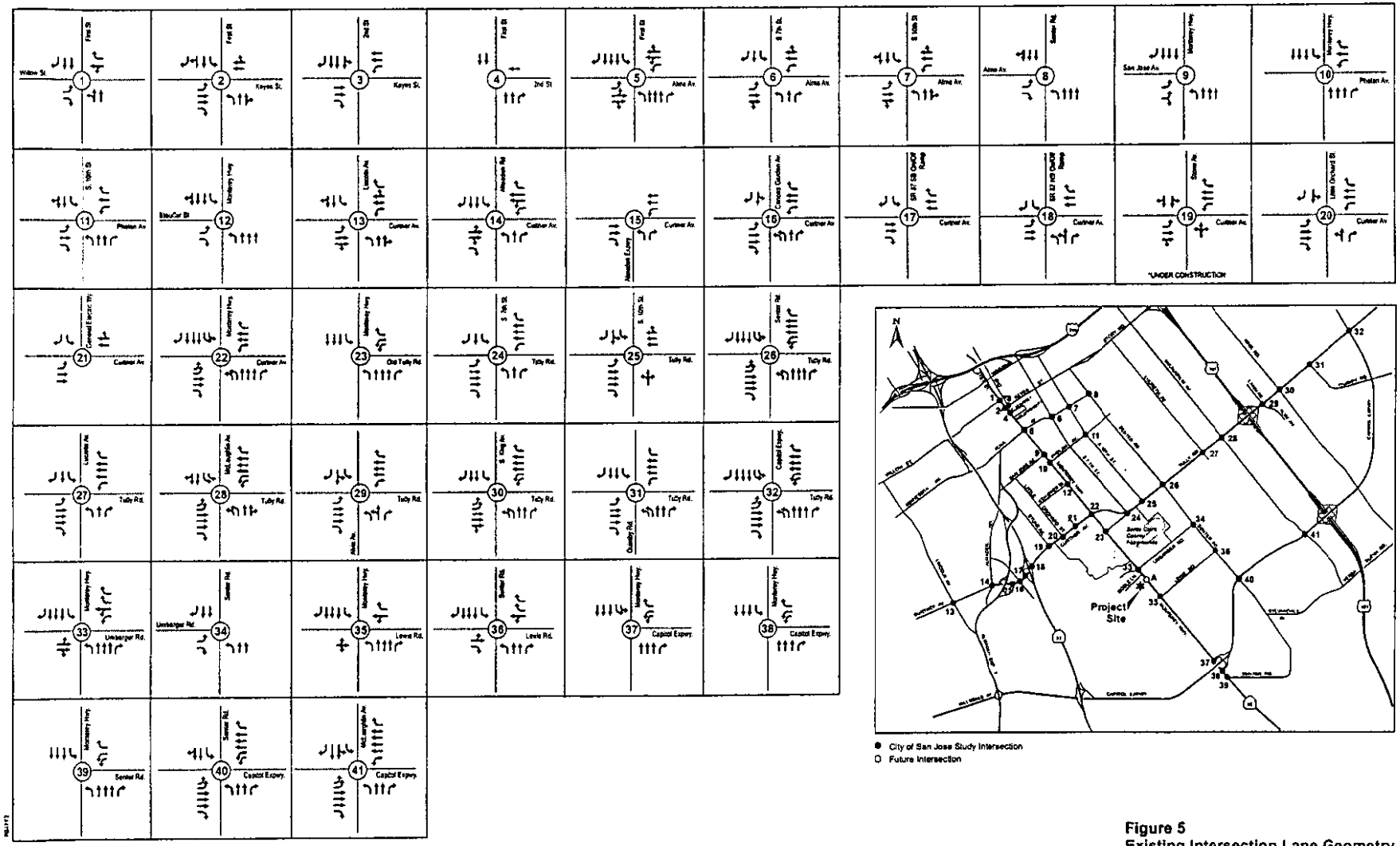

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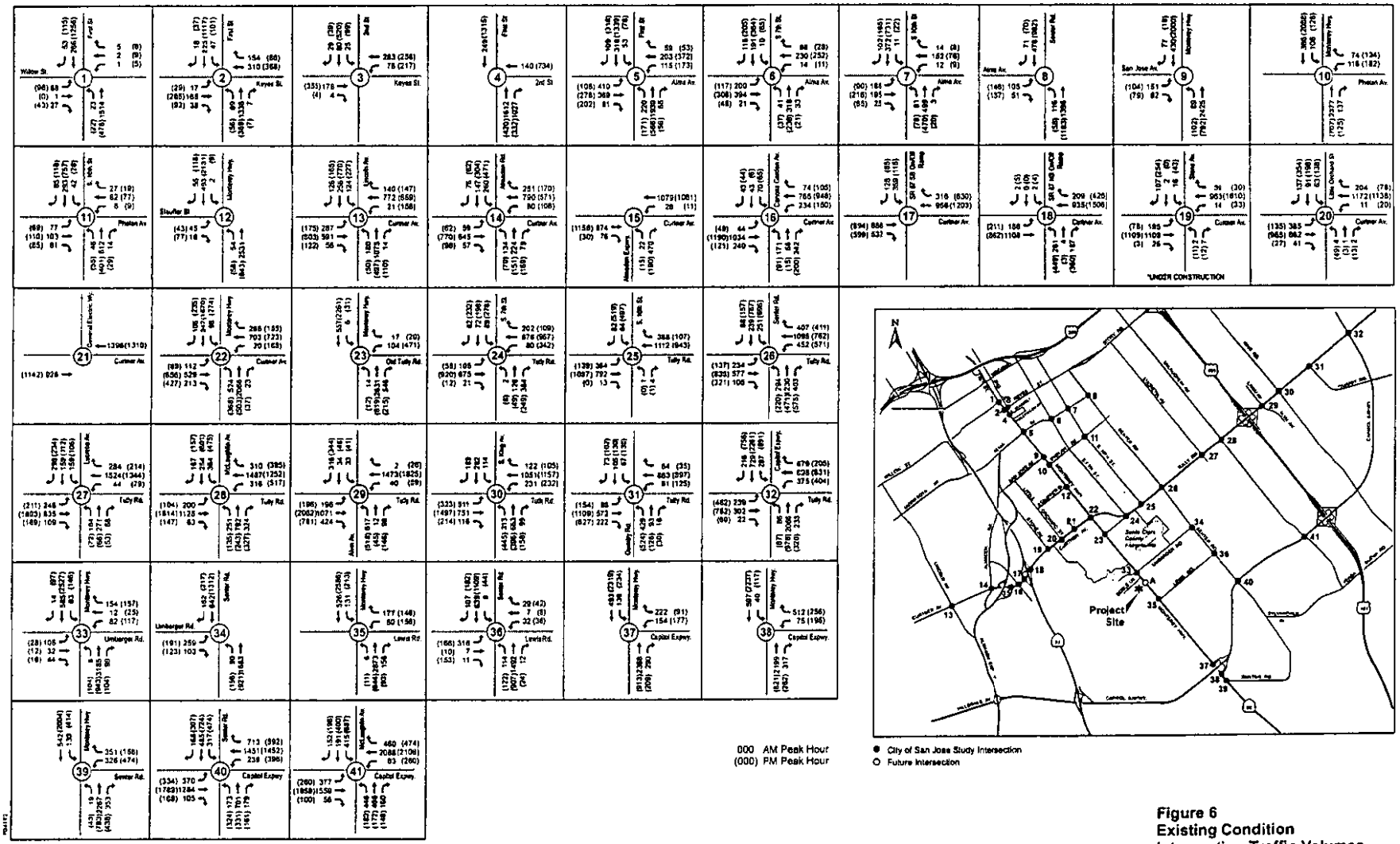
Figure 5
Existing Intersection Lane Geometry and Traffic Control



DKS Associates
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Figure 6
Existing Condition
Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 2

EXISTING CONDITION

#	INTERSECTION	A.M. Peak		P.M. Peak	
		Avg. Delay	LOS	Avg. Delay	LOS
1	First St. & Willow St.	5.1	A	7.9	A
2	First St. & Goodyear-Keyes St.	27.9	C	29.3	C
3	Second St. & Keyes St.	20.9	C+	29.0	C
4	First St & Second St	8.2	A	21.7	C+
5	Monterey Hwy & Alma Ave	36.3	D+	37.9	D+
6	Seventh St & Alma St	25.2	C	22.6	C+
7	Tenth St & Alma St	25.4	C	19.7	B-
8	Senter Rd & Alma St	10.4	B+	11.4	B+
9	Monterey Hwy & San Jose Ave	12.1	B	12.5	B
10	Monterey Hwy & Phelan Ave	12.6	B	14.6	B
11	Tenth St & Phelan Ave	21.9	C+	17.5	B
12	Monterey Hwy & Stauffer Blvd	5.4	A	8.3	A
13	Lincoln Ave & Curtner Ave	45.0	D	39.9	D
14	Almaden Rd & Curtner Ave	43.5	D	47.1	D
15	Almaden Expwy & Curtner Ave	22.6	C+	8.7	A
16	Canoas Garden Ave & Curtner Ave	25.9	C	201	C+
17	SR 87 SB on/off ramps & Curtner Ave	16.3	B	7.8	A
18	SR 87 NB on/off ramps & Curtner Ave	24.5	C	35.2	D+
19	Stone Ave & Curtner Ave	13.3	B	16.2	B
20	Little Orchard St & Curtner Ave	27.7	C	30.0	C
21	General Electric & Curtner Ave	0.6	A	0.6	A
22	Monterey Hwy & Curtner Ave-Tully Rd	37.5	D+	46.3	D
23	Monterey Hwy & Old Tully Rd	5.9	A	17.7	B
24	Seventh St & Tully Rd	24.5	C	35.3	D+
25	Tenth St & Tully Rd	21.2	C+	27.2	C
26	Senter Rd & Tully Rd	40.5	D	42.8	D
27	Lucretia Ave & Tully Rd	36.8	D+	24.2	C
28	McLaughlin Av & Tully Rd	48.0	D	44.5	D
29	Alvin Ave & Tully Rd	30.4	C	33.8	C-
30	S. King Rd & Tully Rd	45.2	D	48.4	D
31	Quimby & Tully Rd	31.8	C	35.9	D+
32	Capitol Expwy & Tully Rd	44.7	D	43.0	D
33	Monterey Hwy & Umbarger Rd	22.5	C+	20.6	C+
34	Senter Rd & Umbarger Rd	10.9	B+	11.1	B+
35	Monterey Hwy & Lewis Rd	14.3	B	22.3	C+
36	Senter Rd & Lewis Road	25.0	C	22.5	C+
37	Monterey Hwy & Capitol Expwy WB	15.5	B	12.9	B
38	Monterey Hwy Capitol Expwy EB	25.0	C	14.3	B
39	Monterey Hwy & Senter Rd	22.8	C+	28.6	C
40	Senter Rd & Capitol Expwy	48.8	D	62.1	E
41	McLaughlin Ave & Capitol Expwy	48.7	D	45.3	D

Average Delay: in seconds per vehicle
LOS: Level of Service

2.3.1 Intersection Operation

According to the City of San Jose intersection level of service standards, all study intersections operate at acceptable levels of service for the existing conditions, with the exception of the Senter Road & Capitol Expressway intersection. The Senter Road & Capitol Expressway intersection currently operates at LOS E during the P.M. peak hour as a result of the number of turning vehicles making a left in the northbound and westbound direction.

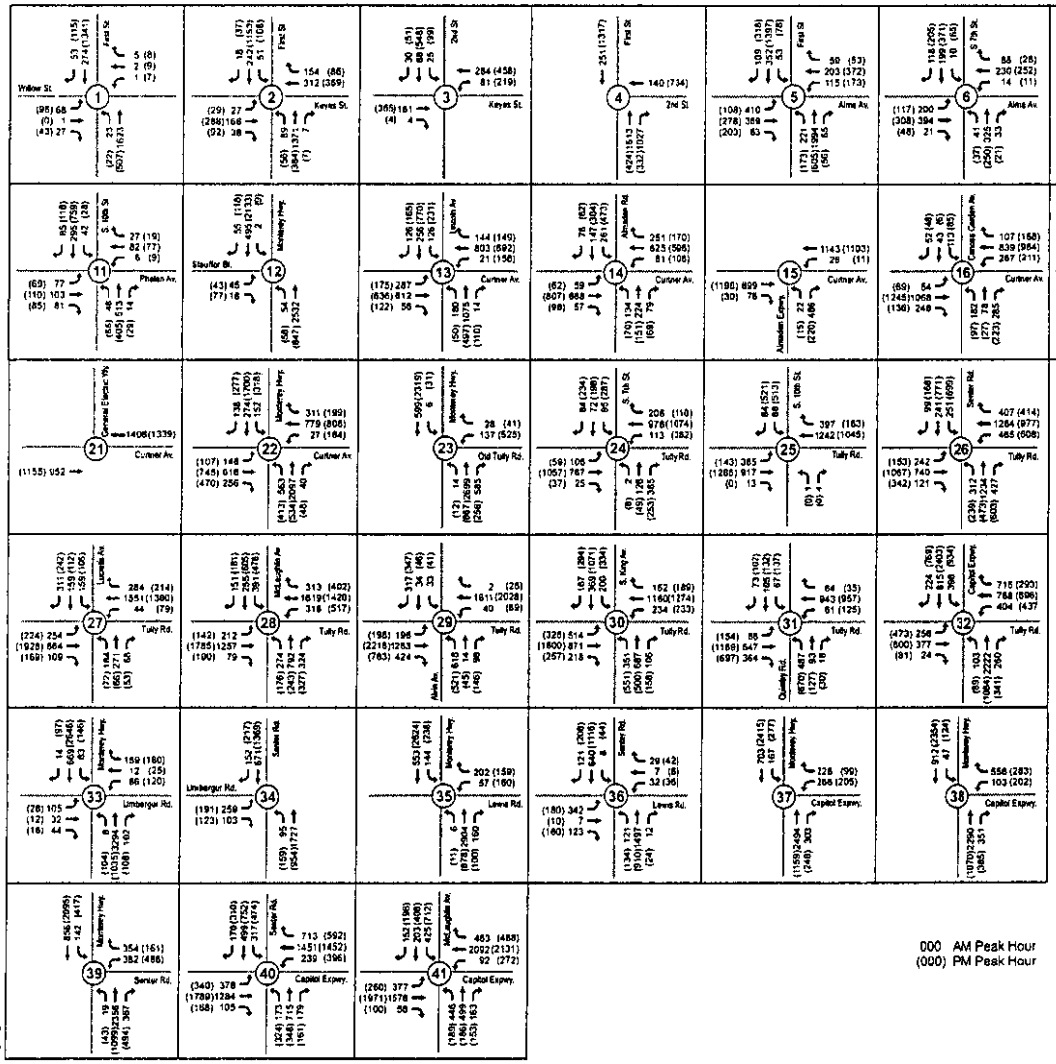
2.4 BACKGROUND CONDITION

This section discusses the traffic operating conditions at the study intersections under the background condition. The background condition includes the traffic expected to be generated by the approved projects (as detailed in the Approved Trip Inventory (ATI) database, provided by the City of San Jose staff in September 2004) prior to the completion of the proposed development. In addition, project generated trips from the Tully Road Medical Office project, the Venetian Terrace Residential project, and the Paloma Centre Development project were also added to the local street network and study intersections. **Appendix C** includes the ATI sheets and approved project trips for projects not yet in the City of San Jose ATI database.

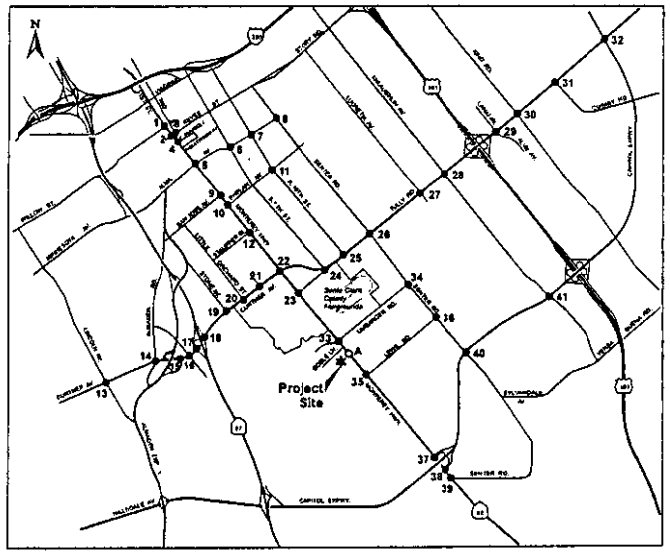
The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the background condition.

Figure 7 illustrates the background traffic volumes at each study intersection. Intersection operational levels of service along with their associated critical and average delays are summarized in **Table 3**.

Appendix A includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours.



000 AM Peak Hour
(000) PM Peak Hour



● City of San Jose Study Intersection
○ Future Intersection

Figure 7
Background Condition
Intersection Traffic Volumes
Weekday AM and PM Peak Hour

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TABLE 3

BACKGROUND CONDITION

#	INTERSECTION	A.M. Peak				P.M. Peak			
		Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Avg. Delay	Critical V/C	Avg. Crit Delay	LOS
1	First St. & Willow St.	5.0	0.510	4.6	A	7.7	0.442	8.0	A
2	First St. & Goodyear-Keyes St.	28.1	0.597	25.2	C	29.3	0.543	26.8	C
3	Second St. & Keyes St.	21.3	0.122	31.4	C+	29.2	0.361	35.8	C
4	First St & Second St	8.2	0.522	8.2	A	21.8	0.522	21.8	C+
5	Monterey Hwy & Alma Ave	36.9	0.669	31.5	D+	37.7	0.648	41.2	D+
6	Seventh St & Alma St	25.2	0.403	30.7	C	22.5	0.368	27.7	C+
7	Tenth St & Alma St	25.4	0.339	25.9	C	19.9	0.425	20.9	B-
8	Senter Rd & Alma St	10.4	0.341	6.5	B+	11.4	0.342	14.2	B+
9	Monterey Hwy & San Jose Ave	10.9	0.562	7.7	B+	12.6	0.531	13.3	B
10	Monterey Hwy & Phelan Ave	12.4	0.593	13.7	B	14.5	0.515	11.0	B
11	Tenth St & Phelan Ave	21.8	0.280	22.2	C+	17.7	0.395	17.6	B
12	Monterey Hwy & Stauffer Blvd	5.4	0.522	3.7	A	8.3	0.531	9.3	A
13	Lincoln Ave & Curtner Ave	45.7	0.872	52.2	D	40.2	0.675	38.4	D
14	Almaden Rd & Curtner Ave	44.0	0.777	48.6	D	48.5	0.858	54.5	D
15	Almaden Expwy & Curtner Ave	23.2	0.555	25.3	C	10.0	0.356	8.4	A
16	Canoas Garden Ave & Curtner Ave	28.6	0.640	36.4	C	22.4	0.586	27.9	C+
17	SR 87 SB on/off ramps & Curtner Ave	19.0	0.569	21.1	B-	14.5	0.542	17.4	B
18	SR 87 NB on/off ramps & Curtner Ave	25.0	0.590	34.8	C	41.7	0.883	59.0.	D
19	Stone Ave & Curtner Ave	28.8	0.577	23.7	C	26.0	0.720	28.2	C
20	Little Orchard St & Curtner Ave	27.6	0.696	37.9	C	30.1	0.683	34.9	C
21	General Electric & Curtner Ave	0.6	0.410	0.6	A	0.6	0.390	0.6	A
22	Monterey Hwy & Curtner Ave-Tully Rd	39.2	0.726	39.8	D	49.5	0.854	55.5	D
23	Monterey Hwy & Old Tully Rd	7.0	0.554	8.2	A	19.0	0.617	21.8	B-
24	Seventh St & Tully Rd	24.6	0.319	23.6	C	31.9	0.607	41.5	C
25	Tenth St & Tully Rd	20.6	0.568	29.4	C+	26.9	0.550	31.5	C
26	Senter Rd & Tully Rd	40.9	0.651	43.4	D	45.1	0.825	53.1	D
27	Lucretia Ave & Tully Rd	36.9	0.713	44.3	D+	24.3	0.524	19.2	C
28	McLaughlin Av & Tully Rd	49.0	0.851	52.7	D	46.3	0.894	57.9	D
29	Alvin Ave & Tully Rd	30.0	0.647	37.8	C	33.9	0.780	40.2	C-
30	S. King Rd & Tully Rd	43.8	0.727	49.0	D	54.3	0.947	63.2	D-
31	Quimby & Tully Rd	30.7	0.448	35.3	C	36.9	0.623	41.3	D+
32	Capitol Expwy & Tully Rd	50.2	0.888	56.9	D	44.7	0.812	58.9	D
33	Monterey Hwy & Umbarger Rd	22.8	0.792	22.8	C+	20.5	0.638	16.4	C+
34	Senter Rd & Umbarger Rd	11.0	0.693	11.2	B+	11.1	0.644	15.5	B+
35	Monterey Hwy & Lewis Rd	15.4	0.678	15.2	B	23.0	0.605	18.5	C
36	Senter Rd & Lewis Road	26.2	0.634	20.0	C	23.6	0.395	16.8	C
37	Monterey Hwy & Capitol Expwy WB	17.2	0.612	19.2	B	14.2	0.520	9.1	B
38	Monterey Hwy Capitol Expwy EB	26.2	0.765	32.3	C	14.8	0.536	9.9	B
39	Monterey Hwy & Senter Rd	22.5	0.655	25.9	C+	28.8	0.623	45.5	C
40	Senter Rd & Capitol Expwy	49.2	0.809	57.3	D	63.6	0.991	80.4	E
41	McLaughlin Ave & Capitol Expwy	49.3	0.853	57.8	D	46.2	0.886	57.3	D

Avg. Delay: in seconds per vehicle
LOS: Level of Service

2.4.1 Intersection Operation

According to the City of San Jose intersection level of service standards, all study intersections would operate at acceptable levels of service for the background conditions, with the exception of the Senter Road & Capitol Expressway intersection. The intersection of Senter Road & Capitol Expressway intersection would continue to operate at LOS E during the P.M. peak hour.

2.5 PROJECT CONDITION

This section evaluates background traffic conditions plus project-generated traffic estimated for the proposed project. The amount of traffic associated with a project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. Trip generation is the process of predicting the number of peak hour trips a proposed development would contribute to the roadways, and whether these trips would be entering or exiting the site. After the number of trips is determined, the distribution process projects the direction these trips use to approach and depart the site, from a regional perspective. Trip assignment involves determining which specific roadways a vehicle would use to travel between its origin and destination.

2.5.1 Significance Criteria and Project Impacts

The City of San Jose[1] defines a traffic impact as significant if:

- The addition of the project traffic causes an intersection operating at LOS D or better under the existing plus approved projects (background condition) to operate at LOS E or F or
- For intersections already operating at unacceptable LOS E or LOS F under the background condition, the proposed project causes:
  - An increase in critical delay by 4.0 or more seconds; and,
  - An increase in the critical volume-to-capacity ratio (v/c) or 0.010 or more.

If there is a decrease (negative change) in critical delay or v/c with the added traffic, then only one of the two criteria need to apply to determine the impact of the proposed project.

2.5.2 Trip Generation

Trip generation for the proposed project was based on the City of San Jose Trip Generation Rates.

In consultation with City of San Jose staff, a capture rate reduction of 25% was applied to the retail component due to the project's mixed-use (housing-retail) components. In addition, a 13% vehicle trip-reduction was applied to the retail components, in accordance with VTA policy for mixed-use development projects, for its residential-retail mixed-use. The 13% retail vehicle trip-reduction was applied to the residential land use, as most of these trips were assumed to be internal trips.

The proposed project is estimated to generate a net total of 7,492 daily trips, including an additional 717 A.M. peak hour trips (253 inbound, 464 outbound) and 745 trips (479 inbound, 266 outbound) during the P.M. peak hour. **Table 4** summarizes the trip generation for the project condition during the A.M. and P.M. peak hours, respectively.

[1] City of San Jose, Department of Public Works, Interim Guidelines for Traffic Impact Analysis of Land Developments. June 1994.

TABLE 4

TRIP GENERATION – PROPOSED PROJECT

Land Use	Size	Units	Daily		A.M. PEAK							P.M. PEAK						
					Peak Hour	Percent (%)		Rate		Vehicle Trips		Peak Hour	Percent (%)		Rate		Vehicle Trips	
			Rate	Trips	Rate	In	Out	In	Out	In	Out	Rate	In	Out	In	Out	In	Out
RETAIL	18	k.s.f.[2]	40	720	0.80	70	30	0.56	0.24	10	4	3.60	50	50	1.80	1.80	32	32
Capture Rate Reduction (25%)				*-180*						*-3*	*-1*						*-8*	*-8*
Mixed-Use Reduction[1] (13%)				*-70*						*-1*	*0*						*-3*	*-3*
SUB-TOTAL (retail)				**470**						**7**	**3**						**21**	**21**
RESIDENTIAL																		
Apartments	320	d.u.[3]	6.0	1,920	0.60	35	65	0.21	0.39	67	125	0.60	65	35	0.39	0.21	125	67
Condominiums/Townhomes	522	d.u.[3]	7.5	3,915	0.75	35	65	0.26	0.49	137	254	0.75	65	35	0.49	0.26	254	137
Single-Family	127	d.u.[3]	9.9	1,257	0.99	35	65	0.35	0.64	44	82	0.99	65	35	0.64	0.35	82	44
Total Trips				7,092						248	461						461	248
Mixed-Use Reduction[1] (13%)				*-70*						*-1*	*0*						*-3*	*-3*
SUB-TOTAL (residential)				**7,022**						**247**	**461**						**458**	**245**
PROJECT TOTAL TRIPS				**7,812**						**258**	**465**						**493**	**280**
Total Trip Reduction				*-320*						*-5*	*-1*						*-14*	*-14*
PROJECT GRAND TOTAL TRIPS				**7,492**						**253**	**464**						**479**	**266**

Source: City of San Jose, Department of Public Works, Transportation Division, Common Vehicular Trip Generation Rates for the San Jose Area, March 1994.

[1] Santa Clara Valley Transportation Authority, Transportation Impact Analysis Guidelines. February 1998.

[2] k.s.f.: 1,000 square feet

[3] d.u.: dwelling-unit

2.5.3 Trip Distribution

The approach and departure for project trips of the proposed mixed-use project were estimated based on existing travel patterns and the locations of complementary land uses. **Figure 8** illustrates the trip distribution of the proposed retail development project. **Figure 9** illustrates the trip distribution of the proposed residential development project.

2.5.4 Trip Assignment

Project-generated trips were assigned to the roadway network based on access points and likely travel patterns. The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under this project condition.

Figure 10 illustrates the project trips at each of the study intersections for the A.M. and P.M. peak hours under the project condition. **Figure 11** illustrates the project scenario traffic volumes at each of the study intersections for the A.M. and P.M. peak hours.

Intersection operational levels of service along with their associated critical and average delays are summarized in **Table 5**.

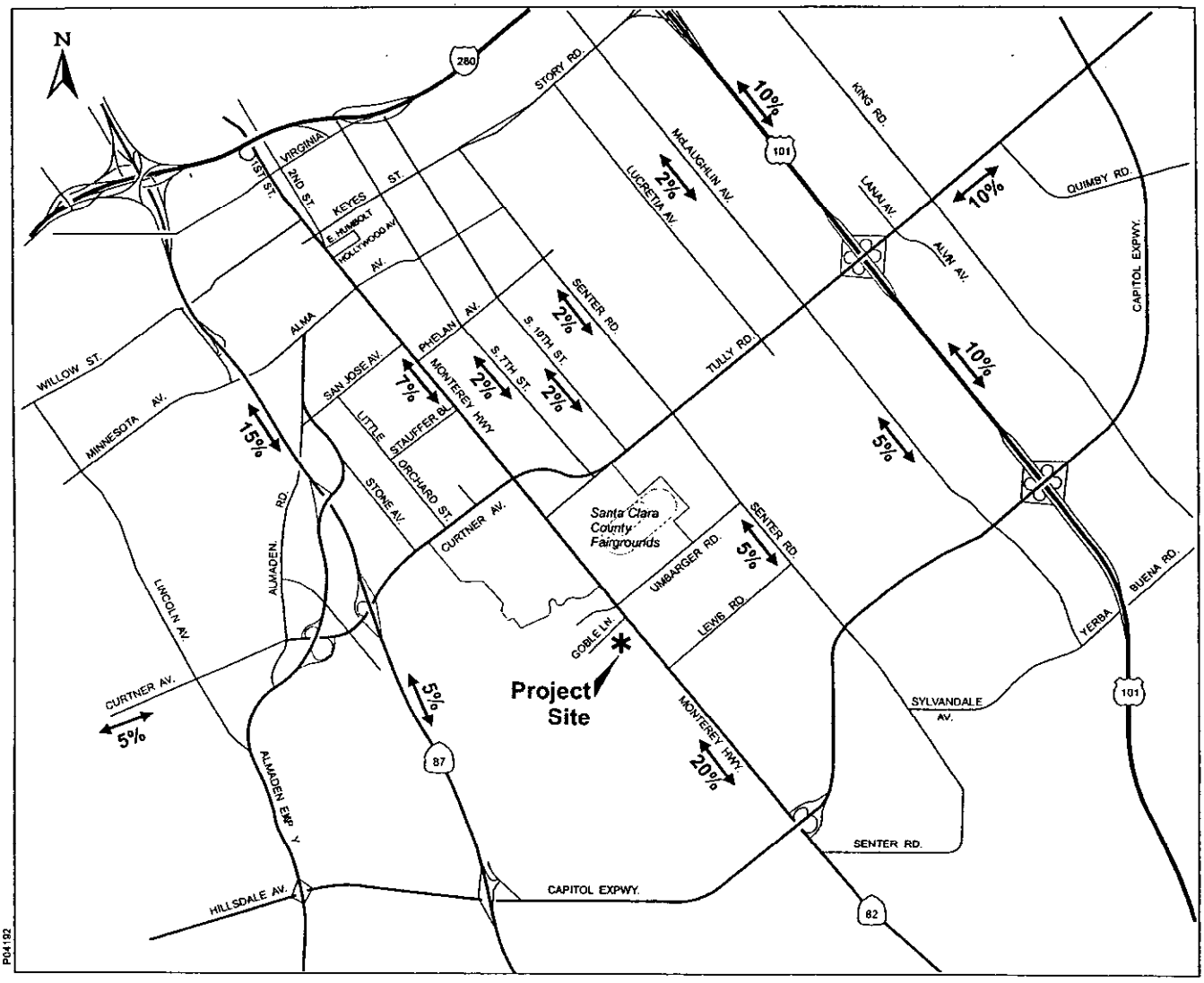

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Figure 8
Project Trip Distribution – Retail

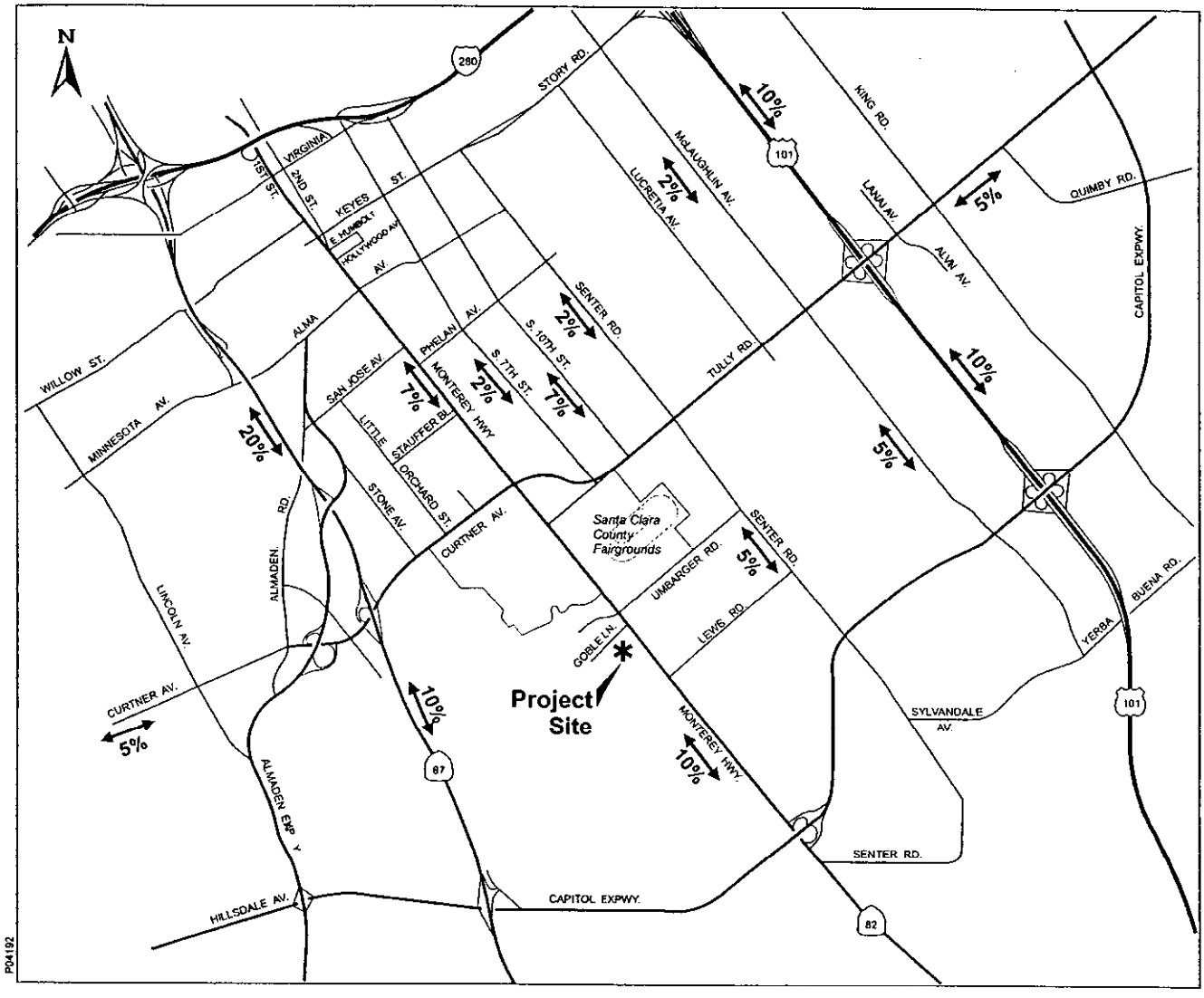

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Figure 9
Project Trip Distribution – Residential

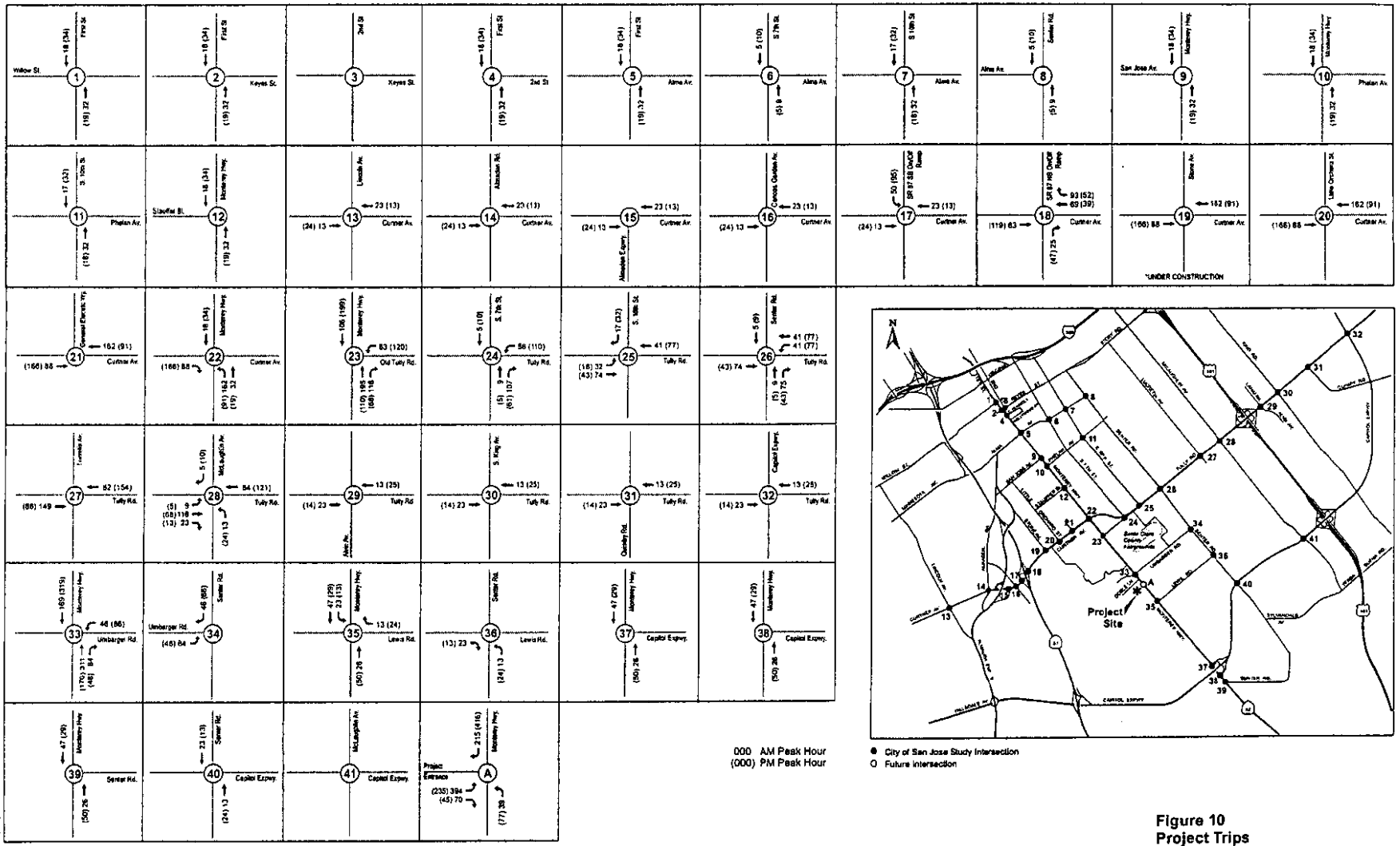

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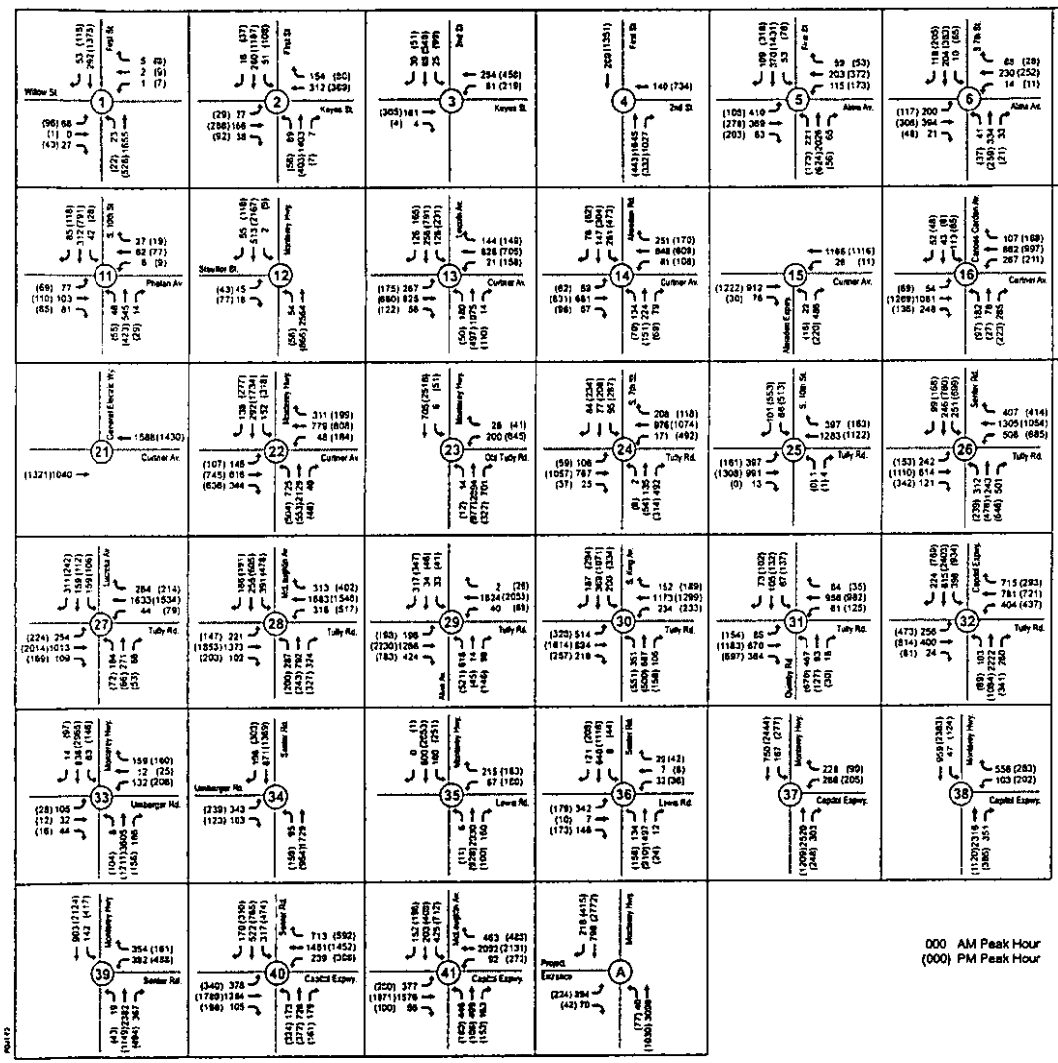
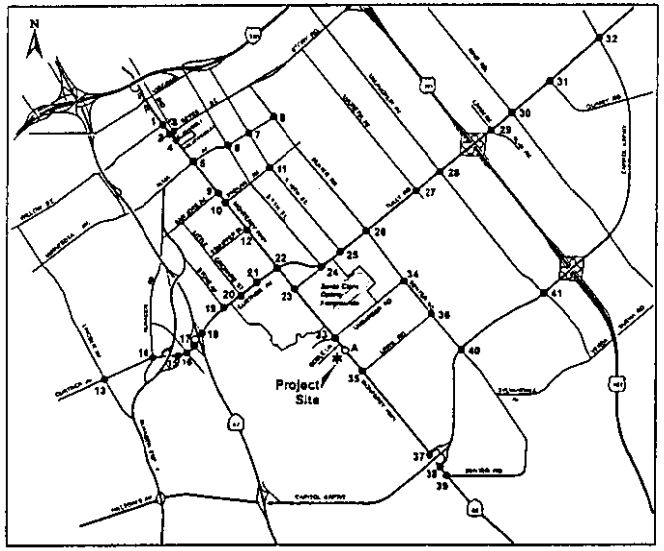
Figure 10
Project Trips
Weekday AM and PM Peak Hour



000 AM Peak Hour
(000) PM Peak Hour



● City of San Jose Study Intersection
○ Future Intersection

Figure 11
Project Condition
Intersection Traffic Volumes
Weekday AM and PM Peak Hour

DKS Associates
TRANSPORTATION SOLUTIONS

TABLE 5
PROJECT CONDITION

#	INTERSECTION	A.M. Peak				P.M. Peak			
		Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Avg. Delay	Critical V/C	Avg. Crit Delay	LOS
1	First St. & Willow St.	5.0	0.519	4.6	A	7.6	0.451	7.9	A
2	First St. & Goodyear-Keyes St.	28.0	0.607	25.2	C	29.2	0.553	26.7	C
3	Second St. & Keyes St.	21.3	0.122	31.4	C+	29.2	0.361	35.8	C
4	First St & Second St	8.1	0.531	8.2	A	22.3	0.527	22.3	C+
5	Monterey Hwy & Alma Ave	37.4	0.675	31.4	D+	37.5	0.654	41.1	D+
6	Seventh St & Alma St	25.3	0.408	30.6	C	22.5	0.374	27.6	C+
7	Tenth St & Alma St	25.1	0.349	25.5	C	19.7	0.435	20.6	B-
8	Senter Rd & Alma St	10.3	0.343	6.5	B+	11.3	0.344	14.1	B+
9	Monterey Hwy & San Jose Ave	10.8	0.568	7.7	B+	12.5	0.538	13.2	B
10	Monterey Hwy & Phelan Ave	12.4	0.599	13.7	B	14.4	0.521	10.9	B
11	Tenth St & Phelan Ave	21.4	0.289	21.6	C+	17.4	0.405	17.3	B
12	Monterey Hwy & Stauffer Blvd	5.4	0.529	3.7	A	8.3	0.538	9.3	A
13	Lincoln Ave & Curtner Ave	46.1	0.879	52.8	D	40.2	0.679	38.5	D
14	Almaden Rd & Curtner Ave	44.4	0.788	50.7	D	49.3	0.869	60.4	D
15	Almaden Expwy & Curtner Ave	21.8	0.614	21.9	C+	9.9	0.363	8.3	A
16	Canoas Garden Ave & Curtner Ave	28.5	0.644	36.3	C	22.3	0.593	27.8	C+
17	SR 87 SB on/off ramps & Curtner Ave	20.0	0.584	21.9	B-	16.7	0.570	15.1	B
18	SR 87 NB on/off ramps & Curtner Ave	26.6	0.626	35.9	C	47.8	0.924	70.8	D
19	Stone Ave & Curtner Ave	28.8	0.603	23.5	C	26.2	0.745	28.5	C
20	Little Orchard St & Curtner Ave	28.4	0.743	39.2	C	30.3	0.710	35.1	C
21	General Electric & Curtner Ave	0.6	0.457	0.7	A	0.6	0.417	0.6	A
22	Monterey Hwy & Curtner Ave-Tully Rd	38.8	0.732	39.8	D+	53.6	0.892	59.6	D-
23	Monterey Hwy & Old Tully Rd	8.8	0.611	10.9	A	21.6	0.695	25.2	C+
24	Seventh St & Tully Rd	26.9	0.324	31.4	C	33.3	0.675	43.8	C-
25	Tenth St & Tully Rd	21.2	0.595	30.6	C+	27.3	0.584	32.3	C
26	Senter Rd & Tully Rd	41.2	0.661	43.5	D	46.3	0.861	55.4	D
27	Lucretia Ave & Tully Rd	36.4	0.728	44.2	D+	24.1	0.539	30.5	C
28	McLaughlin Av & Tully Rd	49.7	0.867	53.7	D	47.1	0.907	58.9	D
29	Alvin Ave & Tully Rd	30.0	0.649	37.7	C	33.9	0.785	40.2	C-
30	S. King Rd & Tully Rd	43.8	0.729	49.1	D	54.6	0.950	63.6	D-
31	Quimby & Tully Rd	30.6	0.450	35.2	C	36.8	0.626	41.3	D+
32	Capitol Expwy & Tully Rd	47.6	0.888	56.9	D	45.0	0.809	58.9	D
33	Monterey Hwy & Umbarger Rd	24.5	0.866	25.9	C	23.0	0.725	22.4	C+
34	Senter Rd & Umbarger Rd	13.2	0.748	14.3	B	12.2	0.676	17.2	B
35	Monterey Hwy & Lewis Rd	16.6	0.697	16.9	B	23.3	0.611	18.5	C
36	Senter Rd & Lewis Road	26.4	0.634	20.0	C	23.7	0.418	27.4	C
37	Monterey Hwy & Capitol Expwy WB	17.0	0.617	19.1	B	14.1	0.525	9.1	B
38	Monterey Hwy Capitol Expwy EB	26.1	0.770	32.3	C	14.8	0.541	9.9	B
39	Monterey Hwy & Senter Rd	22.3	0.660	25.9	C+	28.8	0.633	45.4	C
40	Senter Rd & Capitol Expwy	49.4	0.812	57.6	D	64.3	0.995	81.4	E
41	McLaughlin Ave & Capitol Expwy	49.3	0.853	57.8	D	46.2	0.886	57.3	D
42	Monterey Highway & Project Entrance	13.1	0.760	13.9	B	12.2	0.778	15.0	B

Avg. Delay: in seconds per vehicle
LOS: Level of Service

2.5.5 Intersection Operation

According to the City of San Jose intersection level of service standards, all study intersections would operate at acceptable levels of service under the project condition, with the exception of the Senter Road & Capitol Expressway intersection. The intersection of Senter Road & Capitol Expressway intersection would continue to operate at LOS E during the P.M. peak hour.

The addition traffic generated by the proposed project would not result in any significant changes to intersection levels during either of the peak hours analyzed.

Proposed Project Intersection Operation

Vehicular access to the site would be provided via two driveways. The northern driveway would provide right-turn in, right-turn out only. The southern driveway would provide full access via a new traffic signal at Monterey Road and the southerly project entrance. The proposed signalized intersection was assumed to consist of: one left-turn lane and three through lanes in the northbound direction, two through lanes and one thru-shared right-turn lane in the southbound direction, and two left-turn lanes and an exclusive right-turn lane in the eastbound direction. Full access to the Raisch Asphalt Plant would be provided via this new signalized intersection.

The proposed signalized intersection would operate at LOS B during both the weekday A.M. peak hour and P.M. peak hour, respectively. This intersection of Monterey Road & Raisch Driveway would operate at LOS B during the A.M. peak hour and LOS C during the P.M. peak hour.

Appendix A includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours.

Table 6A and **Table 6B** summarize the intersection operations under the Project Condition at all study intersections using the City of San Jose analysis methodology during the A.M. and P.M. peak hours, respectively. Variations between the critical delays and volume-to-capacity ratios between the project and background conditions were also shown to identify intersections with significant project impacts.

As shown in **Table 6A and Table 6B**, the addition traffic generated by the proposed project would not result in any significant changes to intersection levels during either of the peak hour analysis.

TABLE 6A

LEVEL OF SERVICE COMPARISON SUMMARY - A.M. PEAK

#	INTERSECTION	Background				Project				Difference Project - Background		Impact Determination
		Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Crit. Delay	Crit. V/C Change	Significant Impact
1	First St. & Willow St.	5.0	0.510	4.6	A	5.0	0.519	4.6	A	0.0	0.009	No
2	First St. & Goodyear-Keyes St.	28.1	0.597	25.2	C	28.0	0.607	25.2	C	0.0	0.010	No
3	Second St. & Keyes St.	21.3	0.122	31.4	C+	21.3	0.122	31.4	C+	0.0	0.000	No
4	First St & Second St	8.2	0.522	8.2	A	8.1	0.531	8.2	A	0.0	0.009	No
5	Monterey Hwy & Alma Ave	36.9	0.669	31.5	D+	37.4	0.675	31.4	D+	-0.1	0.006	No
6	Seventh St & Alma St	25.2	0.403	30.7	C	25.3	0.408	30.6	C	-0.1	0.005	No
7	Tenth St & Alma St	25.4	0.339	25.9	C	25.1	0.349	25.5	C	-0.4	0.010	No
8	Senter Rd & Alma St	10.4	0.341	6.5	B+	10.3	0.343	6.5	B+	0.0	0.002	No
9	Monterey Hwy & San Jose Ave	10.9	0.562	7.7	B+	10.8	0.568	7.7	B+	0.0	0.006	No
10	Monterey Hwy & Phelan Ave	12.4	0.593	13.7	B	12.4	0.599	13.7	B	0.0	0.006	No
11	Tenth St & Phelan Ave	21.8	0.280	22.2	C+	21.4	0.289	21.6	C+	-0.6	0.009	No
12	Monterey Hwy & Stauffer Blvd	5.4	0.522	3.7	A	5.4	0.529	3.7	A	0.0	0.007	No
13	Lincoln Ave & Curtner Ave	45.7	0.872	52.2	D	46.1	0.879	52.8	D	0.6	0.007	No
14	Almaden Rd & Curtner Ave	44.0	0.777	48.6	D	44.4	0.788	50.7	D	2.1	0.011	No
15	Almaden Expwy & Curtner Ave	23.2	0.555	25.3	C	21.8	0.614	21.9	C+	-3.4	0.059	No
16	Canoas Garden Ave & Curtner Ave	28.6	0.640	36.4	C	28.5	0.644	36.3	C	-0.1	0.004	No
17	SR 87 SB on/off ramps & Curtner Ave	19.0	0.569	21.1	B-	20.0	0.584	21.9	B-	0.8	0.015	No
18	SR 87 NB on/off ramps & Curtner Ave	25.0	0.590	34.8	C	26.6	0.626	35.9	C	1.1	0.036	No
19	Stone Ave & Curtner Ave	28.8	0.577	23.7	C	28.8	0.603	23.5	C	-0.2	0.026	No
20	Little Orchard St & Curtner Ave	27.6	0.696	37.9	C	28.4	0.743	39.2	C	1.3	0.047	No
21	General Electric & Curtner Ave	0.6	0.410	0.6	A	0.6	0.457	0.7	A	0.1	0.047	No
22	Monterey Hwy & Curtner Ave-Tully Rd	39.2	0.726	39.8	D	38.8	0.732	39.8	D+	0.0	0.006	No
23	Monterey Hwy & Old Tully Rd	7.0	0.554	8.2	A	8.8	0.611	10.9	A	2.7	0.057	No
24	Seventh St & Tully Rd	24.6	0.319	23.6	C	26.9	0.324	31.4	C	7.8	0.005	No
25	Tenth St & Tully Rd	20.6	0.568	29.4	C+	21.2	0.595	30.6	C+	1.2	0.027	No
26	Senter Rd & Tully Rd	40.9	0.651	43.4	D	41.2	0.661	43.5	D	0.1	0.010	No
27	Lucretia Ave & Tully Rd	36.9	0.713	44.3	D+	36.4	0.728	44.2	D+	-0.1	0.015	No
28	McLaughlin Av & Tully Rd	49.0	0.851	52.7	D	49.7	0.867	53.7	D	1.0	0.016	No
29	Alvin Ave & Tully Rd	30.0	0.647	37.8	C	30.0	0.649	37.7	C	-0.1	0.002	No
30	S. King Rd & Tully Rd	43.8	0.727	49.0	D	43.8	0.729	49.1	D	0.1	0.002	No
31	Quimby & Tully Rd	30.7	0.448	35.3	C	30.6	0.450	35.2	C	-0.1	0.002	No
32	Capitol Expwy & Tully Rd	50.2	0.888	56.9	D	47.6	0.888	56.9	D	0.0	0.000	No
33	Monterey Hwy & Umbarger Rd	22.8	0.792	22.8	C+	24.5	0.866	25.9	C	3.1	0.074	No
34	Senter Rd & Umbarger Rd	11.0	0.693	11.2	B+	13.2	0.748	14.3	B	3.1	0.055	No
35	Monterey Hwy & Lewis Rd	15.4	0.678	15.2	B	16.6	0.697	16.9	B	1.7	0.019	No
36	Senter Rd & Lewis Road	26.2	0.634	20.0	C	26.4	0.634	20.0	C	0.0	0.000	No
37	Monterey Hwy & Capitol Expwy WB	17.2	0.612	19.2	B	17.0	0.617	19.1	B	-0.1	0.005	No
38	Monterey Hwy Capitol Expwy EB	26.2	0.765	32.3	C	26.1	0.770	32.3	C	0.0	0.005	No
39	Monterey Hwy & Senter Rd	22.5	0.655	25.9	C+	22.3	0.660	25.9	C+	0.0	0.005	No
40	Senter Rd & Capitol Expwy	49.2	0.809	57.3	D	49.4	0.812	57.6	D	0.3	0.003	No
41	McLaughlin Ave & Capitol Expwy	49.3	0.853	57.8	D	49.3	0.853	57.8	D	0.0	0.000	No

Average Delay - in seconds per vehicle

LOS – Level of Service

TABLE 6B

LEVEL OF SERVICE COMPARISON SUMMARY - P.M. PEAK

#	INTERSECTION	Background				Project				Difference Project - Background		Impact Determination
		Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Crit. Delay	Crit. V/C Change	Significant Impact
1	First St. & Willow St.	7.7	0.442	8.0	A	7.6	0.451	7.9	A	-0.1	0.009	No
2	First St. & Goodyear-Keyes St.	29.3	0.543	26.8	C	29.2	0.553	26.7	C	-0.1	0.010	No
3	Second St. & Keyes St.	29.2	0.361	35.8	C	29.2	0.361	35.8	C	0.0	0.000	No
4	First St & Second St	21.8	0.522	21.8	C+	22.3	0.527	22.3	C+	0.5	0.005	No
5	Monterey Hwy & Alma Ave	37.7	0.648	41.2	D+	37.5	0.654	41.1	D+	-0.1	0.006	No
6	Seventh St & Alma St	22.5	0.368	27.7	C+	22.5	0.374	27.6	C+	-0.1	0.006	No
7	Tenth St & Alma St	19.9	0.425	20.9	B-	19.7	0.435	20.6	B-	-0.3	0.010	No
8	Senter Rd & Alma St	11.4	0.342	14.2	B+	11.3	0.344	14.1	B+	-0.1	0.002	No
9	Monterey Hwy & San Jose Ave	12.6	0.531	13.3	B	12.5	0.538	13.2	B	-0.1	0.007	No
10	Monterey Hwy & Phelan Ave	14.5	0.515	11.0	B	14.4	0.521	10.9	B	-0.1	0.006	No
11	Tenth St & Phelan Ave	17.7	0.395	17.6	B	17.4	0.405	17.3	B	-0.3	0.010	No
12	Monterey Hwy & Stauffer Blvd	8.3	0.531	9.3	A	8.3	0.538	9.3	A	0.0	0.007	No
13	Lincoln Ave & Curtner Ave	40.2	0.675	38.4	D	40.2	0.679	38.5	D	0.1	0.004	No
14	Almaden Rd & Curtner Ave	48.5	0.858	54.5	D	49.3	0.869	60.4	D	5.9	0.011	No
15	Almaden Expwy & Curtner Ave	10.0	0.356	8.4	A	9.9	0.363	8.3	A	-0.1	0.007	No
16	Canoas Garden Ave & Curtner Ave	22.4	0.586	27.9	C+	22.3	0.593	27.8	C+	-0.1	0.007	No
17	SR 87 SB on/off ramps & Curtner Ave	14.5	0.542	17.4	B	16.7	0.570	15.1	B	-2.3	0.028	No
18	SR 87 NB on/off ramps & Curtner Ave	41.7	0.883	59.0	D	47.8	0.924	70.8	D	11.8	0.041	No
19	Stone Ave & Curtner Ave	26.0	0.720	28.2	C	26.2	0.745	28.5	C	0.3	0.025	No
20	Little Orchard St & Curtner Ave	30.1	0.683	34.9	C	30.3	0.710	35.1	C	0.2	0.027	No
21	General Electric & Curtner Ave	0.6	0.390	0.6	A	0.6	0.417	0.6	A	0.0	0.027	No
22	Monterey Hwy & Curtner Ave-Tully Rd	49.5	0.854	55.5	D	53.6	0.892	59.6	D-	4.1	0.038	No
23	Monterey Hwy & Old Tully Rd	19.0	0.617	21.8	B-	21.6	0.695	25.2	C+	3.4	0.078	No
24	Seventh St & Tully Rd	31.9	0.607	41.5	C	33.3	0.675	43.8	C-	2.3	0.068	No
25	Tenth St & Tully Rd	26.9	0.550	31.5	C	27.3	0.584	32.3	C	0.8	0.034	No
26	Senter Rd & Tully Rd	45.1	0.825	53.1	D	46.3	0.861	55.4	D	2.3	0.036	No
27	Lucretia Ave & Tully Rd	24.3	0.524	19.2	C	24.1	0.539	30.5	C	11.3	0.015	No
28	McLaughlin Av & Tully Rd	46.3	0.894	57.9	D	47.1	0.907	58.9	D	1.0	0.013	No
29	Alvin Ave & Tully Rd	33.9	0.780	40.2	C-	33.9	0.785	40.2	C-	0.0	0.005	No
30	S. King Rd & Tully Rd	54.3	0.947	63.2	D-	54.6	0.950	63.6	D-	0.4	0.003	No
31	Quimby & Tully Rd	36.9	0.623	41.3	D+	36.8	0.626	41.3	D+	0.0	0.003	No
32	Capitol Expwy & Tully Rd	44.7	0.812	58.9	D	45.0	0.809	58.9	D	0.0	-0.003	No
33	Monterey Hwy & Umbarger Rd	20.5	0.638	16.4	C+	23.0	0.725	22.4	C+	6.0	0.087	No
34	Senter Rd & Umbarger Rd	11.1	0.644	15.5	B+	12.2	0.676	17.2	B	1.7	0.032	No
35	Monterey Hwy & Lewis Rd	23.0	0.605	18.5	C	23.3	0.611	18.5	C	0.0	0.006	No
36	Senter Rd & Lewis Road	23.6	0.395	16.8	C	23.7	0.418	27.4	C	10.6	0.023	No
37	Monterey Hwy & Capitol Expwy WB	14.2	0.520	9.1	B	14.1	0.525	9.1	B	0.0	0.005	No
38	Monterey Hwy Capitol Expwy EB	14.8	0.536	9.9	B	14.8	0.541	9.9	B	0.0	0.005	No
39	Monterey Hwy & Senter Rd	28.8	0.623	45.5	C	28.8	0.633	45.4	C	-0.1	0.010	No
40	Senter Rd & Capitol Expwy	63.6	0.991	80.4	E	64.3	0.995	81.4	E	1.0	0.004	No
41	McLaughlin Ave & Capitol Expwy	46.2	0.886	57.3	D	46.2	0.886	57.3	D	0.0	0.000	No

Average Delay - in seconds per vehicle

LOS – Level of Service

2.5.6 Monterey Highway & Raisch Driveway Access Alternatives

This section evaluates several access alternatives that were considered for the proposed project, in part, due to the proximity of the Raisch Asphalt Plant, located south of the proposed project site. **Appendix D** includes the diagrams for all of the alternatives considered. The alternatives considered are as follow:

Alternative A: Access to the proposed Goble Lane Project site would be provided via a new traffic signal at Monterey Road and a single project entrance. This new signal would provide full access to and from the site. Access to the Raisch driveway would be restricted for entering left-turn vehicles in the northbound direction along Monterey Highway and for exiting left-turn vehicles in the eastbound direction out of the Raisch driveway. The Raisch driveway would provide right-turn in and right-turn out access only.

Trucks that currently make a left-turn in the northbound and eastbound direction to/from the Raisch site would be rerouted. **Table 7** lists the number of existing vehicles (trucks and cars) at the Monterey Road & Raisch driveway location.

TABLE 7
Vehicles (trucks and cars) at Raisch Driveway

Location	A.M. Peak		P.M. Peak	
	NBL	EBL	NBL	EBL
Monterey Road & Raisch Driveway	7	13	4	6

NBL: Northbound Left along Monterey Road - inbound
EBL: Eastbound Left out of Raisch Driveway - outbound

The rerouting of trucks would potentially affect the left-turn queue and intersection level of service operation at the intersections of Monterey Road & Lewis Road, Senter Road & Lewis Road, Senter Road & Umbarger Road, Senter Road & Tully Road, Tully Road & Tenth Street, Tully Road & 11th Street and Monterey Road & Curtner Avenue-Tully Road.

This condition would exist in the short-term while the Raisch site continues its existing operations. Any change in operation at the Raisch site would likely be accompanied by a change in land use and access.

Alternative B: Access to the proposed Goble Lane Project site would be provided via a new traffic signal at Monterey Road and a single project entrance. This new signal would provide full access to and from the site. Access to the Raisch driveway would be restricted for entering left-turn vehicles in the northbound direction along Monterey Highway and for exiting left-turn vehicles in the eastbound direction out of the Raisch driveway. The Raisch driveway would provide right-turn in and right-turn out access only. Trucks that currently make a left-turn in the northbound and eastbound direction to/from the Raisch site would be rerouted via Pullman Way.

Table 8 lists the number of vehicles (trucks and cars) at the Monterey Road & Pullman Way intersection location and the additional number of vehicles added due to the rerouting of trucks at the Monterey Road & Raisch driveway.

TABLE 8
Vehicles (trucks and cars) at Pullman Way

Location	A.M. Peak		P.M. Peak	
	NBL	EBL	NBL	EBL
Monterey Road & Pullman Way	3	7	1	1
Monterey Road & Raisch Driveway	*7*	*13*	*4*	*6*
Total Number of Vehicles	10	20	5	7

NBL: Northbound Left along Monterey Road - inbound
EBL: Eastbound Left out of Pullman Way – outbound

The rerouting of trucks would potentially affect the eastbound left-turn queue and intersection level of service operation at the intersections of Monterey Road & Pullman Way. Note that access via Pullman Way would result in sharing Pullman Way with other existing uses.

This condition would exist in the short-term while the Raisch site continues its existing operations. Any change in operation at the Raisch site would likely be accompanied by a change in land use and access.

Alternative C: Access to the proposed site would be provided via a new traffic signal at Monterey Road and the project entrance. This new signal would provide full access to and from the site. Access to the Raisch driveway would be provided via this new signalized intersection for vehicles traveling in the northbound direction along Monterey Road to the Raisch site, as well as, for vehicles exiting the Raisch site and traveling northbound on Monterey Road. The existing Raisch driveway, located south of the proposed site, would continue to provide right-turn in and right-turn out access only, to the Raisch site.

This condition would create a separation between the retail land use component of the proposed project, both trucks and project related vehicles would be combined within the internal roadway network.

Alternative D: This alternative is a combination of Alternative A and C. Access to the proposed site would be provided via two driveways. The northern driveway would provide right-in, right-out turns only. The southern driveway would provide access via a new traffic signal at Monterey Road and the southerly project entrance. Access to the Raisch driveway would be provided via this new signalized intersection for vehicles traveling in the northbound direction along Monterey Road to the Raisch site, as well as for vehicles exiting the Raisch site and traveling northbound on Monterey Road. The Raisch driveway, located south of the proposed site, would continue to provide right-turn in and right-turn out access only, to the Raisch site.

This condition would create a separation between internal land uses in the proposed project site. Also, both trucks and project related vehicles would be combined within the internal roadway network. This may lead to queues extending beyond the proposed internal roadway into the project site, as trucks would be added to the vehicles mix.

2.5.7 Left-Turn Queue Analysis

Left-turn queue analysis was performed for fourteen (14) intersections to determine the potential vehicle queue for the left-turn movements and the ability of the existing left-turn bays (when present) to provide adequate storage space for those queues. **Table 9** summarizes the results of the left-turn queue analysis. Although there are no significance criteria for deficient left-turn queues, the analysis is presented here for informational purposes only.

The analysis was performed only for the left-turn movements where left-turn bays were present with two exceptions. Left-turn storage analysis was not performed for freeway on-ramps or when the left-turn bay was adjacent to a lane with a shared left and through movements. The shaded areas in **Table 9** represent situations in which the left-turn queues, on average, are greater that the storage capacity at each location.

The left-turn storage analysis indicated that the majority of these 14 City of San Jose study intersections currently have left-turn bays with inadequate storage space for the vehicle queues. The expected addition of project traffic would cause vehicle queues to increase in most left-turn pockets that already have inadequate storage space.

At the intersection of SR-87 NB ramps & Curtner Avenue in the AM Peak hour, the addition of project traffic in the eastbound left-turn pocket would be estimated to increase by 2 vehicles causing it to overflow. At the intersection of Monterey Highway & Curtner Avenue in the AM Peak hour, the addition of project traffic in the northbound left-turn pockets would be estimated to increase by 9 vehicles causing it to overflow. At the intersection of Seventh Street & Tully Road in the AM Peak hour, the addition of project traffic in the westbound left-turn pockets would be estimated to increase by 3 vehicles causing it to overflow. At the intersection of McLaughlin Avenue & Tully Road in the AM Peak hour, the addition of project

traffic in the eastbound left-turn pockets would be estimated to increase by 3 vehicles causing it to overflow. The existing PM peak hour queue already exceeds the available storage lengths at three of these four intersections.

Project Site Left-Turn Queue Analysis

Under this project condition, a northbound left-turn pocket on Monterey Highway was assumed to facilitate access to the proposed project site. The existing left-turn pocket located south of the proposed project site with access to the Raisch asphalt plant was assumed to be modified in order to allow for a left-turn pocket at the signalized intersection of the proposed project site (see discussion under Section 2.5.9 Site Access and Circulation). For the proposed signalized intersection, at the site entrance, the expected design queue is two (2) vehicles in the A.M. peak hour and four (4) vehicles in the P.M. peak hour. A left-turn pocket that is 100 feet or longer would have sufficient storage space to adequately accommodate the expected 95th percentile queue for northbound left-turns to the proposed project site.

TABLE 9

GOBLE LANE DEIR - Left Turn Queue Analysis

Int #	Intersection	Approach	Lanes	Storage Length	Existing				Background				Project			
					AM		PM		AM		PM		AM		PM	
					Design Queue[1]	Design Length[2]	Design Queue[1]	Design Length[2]	Design Queue[1]	Design Length[2]	Design Queue[1]	Design Length[2]	Design Queue[1]	Design Length[2]	Design Queue[1]	Design Length[2]
18	SR-87 NB Ramps & Curtner Avenue	EB	1	315	11	275	13	325	12	300	14	350	13	325	14	350
22	Monterey Highway & Curtner Avenue	NB	2	600	22	550	27	675	29	725	30	750	36	900	36	900
		SB	2	310	8	200	17	425	12	300	19	475	12	300	19	475
		EB	1	80	9	225	7	175	12	300	9	225	12	300	9	225
		WB	1	250	2	50	12	300	4	100	14	350	4	100	14	350
23	Monterey Highway & Tully Road	NB	1	115	1	25	1	25	1	25	1	25	1	25	1	25
		SB	1	300	0	0	2	50	0	0	2	50	0	0	2	50
24	South Seventh Street & Tully Road	NB	1	40	0	0	0	0	0	0	1	25	0	0	0	0
		SB	1	90	5	125	16	400	6	150	17	425	6	150	17	425
		EB	1	180	7	175	4	100	7	175	4	100	7	175	4	100
		WB	1	180	6	150	18	450	7	175	20	500	9	225	24	600
25	South Tenth Street & Tully Road	SB	2	350	6	150	23	575	6	150	25	625	6	150	25	625
		EB	1	240	18	450	9	225	19	475	10	250	20	500	11	275
26	Senter Road & Tully Road	NB	2	600	14	350	14	350	15	375	16	400	15	375	16	400
		SB	2	400	17	425	40	1000	17	425	41	1025	17	425	42	1050
		EB	2	320	16	400	10	250	17	425	11	275	17	425	11	275
		WB	2	590	27	675	35	875	28	700	37	925	30	750	41	1025
28	McLaughlin Avenue & Tully Road	NB	2	530	15	375	10	250	17	425	13	325	18	450	14	350
		SB	2	400	26	650	31	775	26	650	31	775	26	650	32	800
		EB	2	380	14	350	8	200	15	375	10	250	16	400	11	275
		WB	2	720	21	525	33	825	22	550	34	850	22	550	34	850
33	Monterey Highway & Umbarger Road	NB	1	120	1	25	8	200	1	25	8	200	2	50	8	200
		SB	1	190	7	175	9	225	7	175	9	225	7	175	10	250
34	Senter Road & Umbarger Road	NB	1	100	3	75	5	125	3	75	5	125	3	75	5	125
		EB	1	100	8	200	6	150	8	200	6	150	10	250	8	200
35	Monterey Highway & Lewis Rd	NB	1	110	0	0	1	25	0	0	1	25	0	0	1	25
		SB	1	220	10	250	12	300	11	275	14	350	12	300	14	350
37	Monterey Highway & Capitol Expressway North Ramp	SB	2	720	11	275	15	375	13	325	18	450	13	325	18	450
38	Monterey Highway & Capitol Expressway South Ramp	SB	1	110	3	75	7	175	4	100	8	200	4	100	8	200
40	Senter Road & Capitol Expressway	NB	1	200	12	300	23	575	12	300	23	575	12	300	23	575
		SB	1	390	21	525	27	675	21	525	27	675	21	525	27	675
		EB	2	620	27	675	25	625	28	700	25	625	28	700	25	625
		WB	2	880	18	450	30	750	18	450	30	750	18	450	30	750
41	McLaughlin Avenue & Capitol Expressway	NB	1	130	28	700	14	350	28	700	14	350	28	700	14	350
		EB	2	890	28	700	19	475	28	700	19	475	28	700	19	475
		WB	1	230	7	175	19	475	7	175	19	475	7	175	19	475

Notes: [1] Design queue based on intersection level of service analysis
[2] Design Length queue x 25 feet per vehicle

2.5.8 Transit Analysis

Based on observations of the capacity and occupancy rates of the public transit routes servicing the project area, it was concluded that transit trips to be generated by the proposed project would not significantly impact the public transit service. With a typical transit mode share of one to two percent, the proposed project would generate 7 to 15 peak-hour transit trips each weekday, which would not significantly increase load factors on transit vehicles.

2.5.9 Bicycles and Pedestrian Facilities

The study intersections are currently signalized and equipped with pedestrian crossing signals and crosswalks. The expected increase in vehicular traffic volumes at these intersections would not significantly impact the pedestrian movements. A new crosswalk would be provided at the new signalized intersection of Monterey Highway and the Project Site Entrance.

Also, the pedestrian movements along the roadway network adjacent to the project site would continue to be accommodated by provided sidewalks (existing along the project frontage), and therefore no adverse impacts are anticipated.

2.5.10 Site Access and Internal Circulation

Project access and circulation were analyzed for the proposed mixed-used development project. The site plan (Figure 2) indicates vehicular access to the site via two driveways. The northern driveway would provide right-turn in, right-turn out only. The southern driveway would provide full access via a new traffic signal at Monterey Road and the southerly project entrance. With this new signalized intersection, vehicles traveling northbound on Monterey Highway wanting to access the site would make a left-turn at the signalized intersection. Vehicles traveling in the southbound direction would make a right at the project site intersection. Vehicles exiting the site would also be allowed to make left and right turns onto Monterey Highway. Truck and emergency vehicle access would also be provided via this new signalized intersection.

Internal Circulation

The site plan also shows a drive aisle to the north-west corner of the project site and one aisle to the south-west corner of the site. These aisles would provide truck and emergency vehicle access to the back (western side) of the site. One aisle is located in the middle of the project site to provide access from one side of the project to the other, as well as access to the park.

All parking stalls are shown to be 90 degrees to their respective driving aisles. Sight distance is expected to be adequate; there are no roadway configurations, natural hills, or sharp horizontal curves in the roadway that are anticipated to impede with vehicular sight distance.

The overall project internal design appears acceptable. No adverse internal circulation impacts related to the proposed project are anticipated.

2.5.11 Roadway Segment Capacity Analysis

The roadway segment along Tully Road between Monterey Road and Tenth Street is a .6 mile divided multilane-arterial. It consists of six (6) travel lanes (3 in each direction) from Tenth Street to Seventh Street and five (5) travel-lanes from Seventh Street to Monterey Road. The roadway segment includes three (3) signalized intersections and left-turn bays at Tenth Street, Seventh Street and Curtner Avenue, respectively (see Section 2.5.5 of this report for left-turn queue analysis discussion).

Under the existing conditions, the intersection of Tully Road & Tenth Street currently operates at LOS C+ during the A.M. peak and LOS C during the P.M. Peak. The intersection of Seventh Street & Tully Road currently operates at LOS C during the A.M. and P.M. peak respectively. The intersection of Monterey Road & Tully Road-Curtner Avenue currently operates at LOS D+ during the A.M. and LOS D during the P.M. peak hour.

Vehicle progression along Tully road is often hindered by vehicles overflowing the left-turn pockets into the through lanes. This condition is prevalent in the eastbound directions during the A.M. peak hour at the intersections of Monterey Road and Curtner Avenue and Tully Road and Tenth Street and along the segment between Monterey Road and Seventh Street during the P.M. peak hour in the eastbound and westbound directions.

Also, progression along Tully Road is a function of several factors, including the number of vehicles, traffic signal timing and spacing, and the various land uses fronting Tully Road in this area. As improvements to SR 87 and US 101 come online, it is likely that Tully Road will serve less traffic traveling between these regional facilities.

Under this project alternative, a total of 164 trips would be added during the A.M. peak hour and 171 trips during the P.M. peak hour between 10th Street and Seventh Street. The effect of these additional trips would be increase to demand at deficient left-turn pockets and along Tully Road itself. The analysis of the left-turn pockets is provided in Section 2.5.5. The project would add between one and five vehicles during peak hours to these left-turn pockets. No changes to intersection service levels are anticipated as a result of the additional project-generated trips.

2.5.12 Parking Analysis

The proposed project parking requirements were evaluated based on the City of San Jose code requirements. In accordance with the City of San Jose Parking and Loading Requirements, the proposed project is required to provide a total of 497 covered parking spaces and 1,456 open parking spaces for a total of 1,953 parking spaces in order to meet the City of San Jose Parking Standards. **Table 10** summarizes the City's parking standard requirements and the parking spaces provided for the proposed project.

The proposed development would provide a total of 1,992 parking spaces. The proposed project would provide a total of 1,587 covered parking spaces. In addition, 405 on-street (open) parking spaces will be provided within the project. With the provision of 1,587 covered spaces and 405 on-street parking spaces, the proposed mixed-use development project would satisfy the City of San Jose Parking Space Standards.

TABLE 10
Parking Analysis Summary

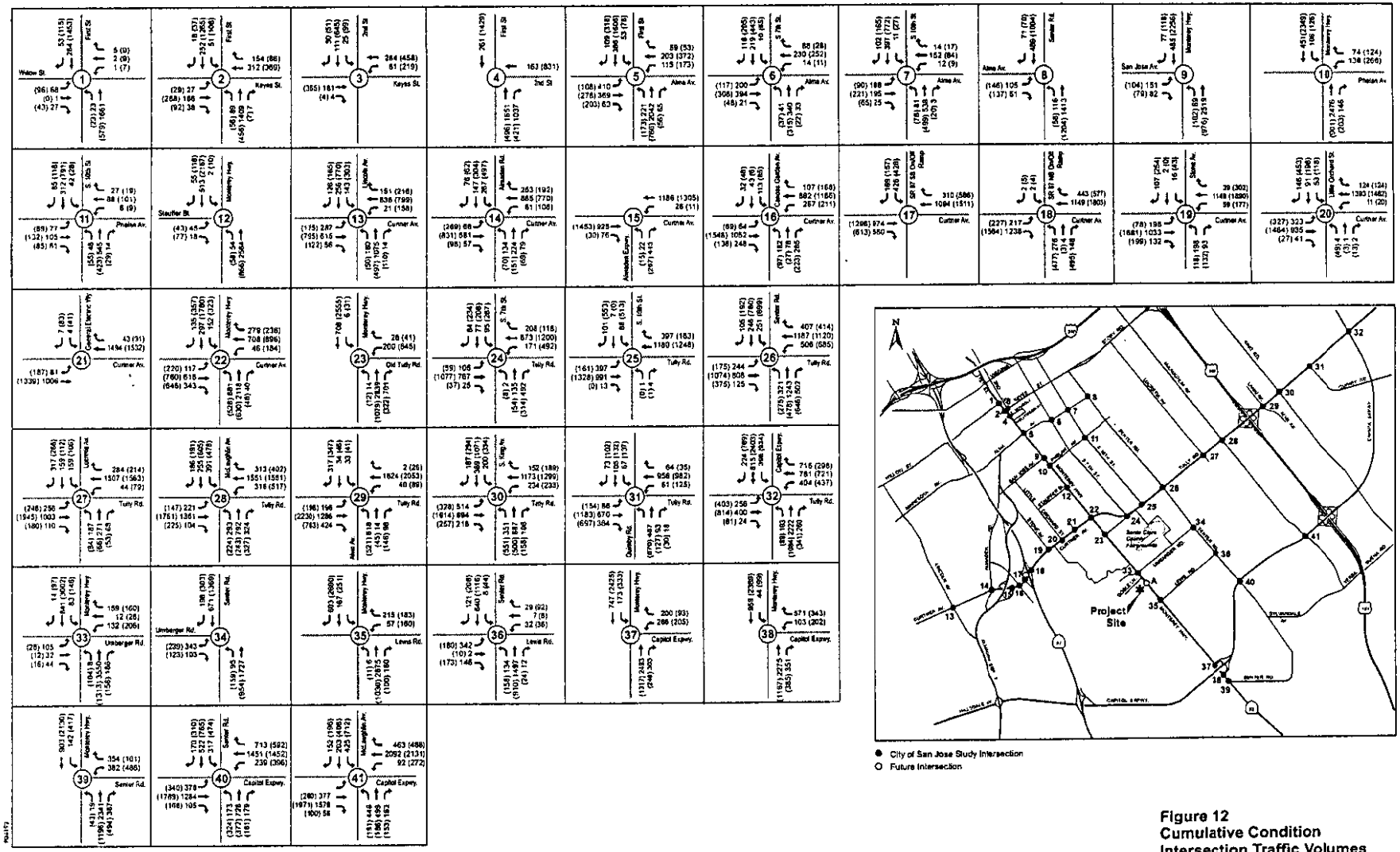
Living Unit Size		No. Units	Parking Required[3]		Parking Spaces Provided[4]
			Parking Standard (per unit)	No. of Spaces	
Apt/Condo	1BR	217 d.u.	1.5[1]	325	1,197 (on-site garage) 170 (on-street)
	2BR	364 d.u.	1.8[1]	655	
	3BR	193 d.u.	2.0[1]	386	
Subtotal:		**774 units**		**1,367**	**1,367**
Townhomes	2BR	100 d.u.	2.5[2]	250	390 (attached garage) 90 (open parking) 27 (on-street)
	3BR	95 d.u.	2.6[2]	247	
Subtotal:		**195 units**		**497**	**507**
Retail	18,000 square feet		5 per 1,000 sq. ft	90	90
Park	2.0 Acres		-	-	28 (on-street)
TOTAL				**1,953**	**1,992**

[1] All open parking
[2] Two-Car garage
[3] City of San Jose Parking & Loading Standards. Municipal code Section 20.90.060
[4] Correspondence from ROEM Development Corporation, November 14, 2004.

2.6 CUMULATIVE CONDITION

The cumulative condition includes the traffic expected to be generated by pending projects in the vicinity of the proposed project. The General Electric project was added to the Project Condition turning movement volumes at the study intersections to evaluate the Cumulative Condition. **Appendix E** includes the General Electric Project trips.

Figure 12 illustrates the cumulative scenario traffic volumes at each of the study intersections under the A.M. and P.M. peak hours, respectively. Intersection operational levels of service along with their associated critical and average delay are summarized in **Table 11**.



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● City of San Jose Study Intersection
○ Future Intersection

Figure 12
Cumulative Condition
Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 11
CUMULATIVE CONDITION

#	INTERSECTION	A.M. Peak				P.M. Peak			
		Avg. Delay	Critical V/C	Avg. Crit Delay	LOS	Avg. Delay	Critical V/C	Avg. Crit Delay	LOS
1	First St. & Willow St.	4.9	0.506	4.5	A	7.3	0.472	7.6	A
2	First St. & Goodyear-Keyes St.	27.7	0.590	24.7	C	28.8	0.576	26.4	C
3	Second St. & Keyes St.	22.1	0.126	28.3	C	29.4	0.380	35.3	C
4	First St & Second St	9.4	0.569	9.4	A	23.3	0.595	23.3	C
5	Monterey Hwy & Alma Ave	39.8	0.702	27.8	D	36.6	0.688	40.0	D+
6	Seventh St & Alma St	25.2	0.399	30.3	C	22.2	0.408	26.7	C+
7	Tenth St & Alma St	24.6	0.333	25.2	C	19.7	0.435	20.6	B-
8	Senter Rd & Alma St	9.9	0.365	6.1	A	11.3	0.344	14.1	B+
9	Monterey Hwy & San Jose Ave	10.2	0.610	7.2	B	11.7	0.533	14.1	B+
10	Monterey Hwy & Phelan Ave	12.7	0.649	14.2	B	17.4	0.614	15.2	B
11	Tenth St & Phelan Ave	21.2	0.592	21.2	C	18.5	0.420	18.7	B
12	Monterey Hwy & Stauffer Blvd	5.4	0.576	3.9	A	8.3	0.538	9.3	B-
13	Lincoln Ave & Curtner Ave	44.6	0.857	50.5	D	42.7	0.789	48.3	A
14	Almaden Rd & Curtner Ave	44.0	0.786	48.5	D	66.5	0.995	78.2	E
15	Almaden Expwy & Curtner Ave	18.8	0.592	19.7	B	11.5	0.577	15.6	B+
16	Canoas Garden Ave & Curtner Ave	27.6	0.624	34.9	C	22.4	0.675	27.8	B+
17	SR 87 SB on/off ramps & Curtner Ave	18.5	0.530	18.4	B	19.9	0.682	21.6	C+
18	SR 87 NB on/off ramps & Curtner Ave	22.1	0.563	26.8	C	58.0	0.988	92.1	E+
19	Stone Ave & Curtner Ave	28.2	0.629	32.3	C	37.0	0.915	46.3	D+
20	Little Orchard St & Curtner Ave	26.0	0.702	34.0	C	37.0	0.859	50.2	D+
21	General Electric & Curtner Ave	1.0	0.428	1.1	A	9.9	0.613	15.3	D+
22	Monterey Hwy & Curtner Ave-Tully Rd	37.8	0.736	37.5	D	59.4	0.929	64.0	E+
23	Monterey Hwy & Old Tully Rd	8.6	0.643	10.8	A	21.5	0.702	25.2	D-
24	Seventh St & Tully Rd	26.3	0.330	30.0	C	32.7	0.678	43.8	C+
25	Tenth St & Tully Rd	20.3	0.559	28.1	C	27.2	0.608	32.3	C-
26	Senter Rd & Tully Rd	40.8	0.658	45.8	D	45.6	0.854	54.8	C
27	Lucretia Ave & Tully Rd	35.7	0.714	43.4	D	24.8	0.559	31.4	D
28	McLaughlin Av & Tully Rd	47.4	0.831	50.6	D	46.5	0.889	57.6	C
29	Alvin Ave & Tully Rd	29.2	0.657	36.5	C	33.9	0.785	40.2	D
30	S. King Rd & Tully Rd	43.0	0.726	48.1	D	55.2	0.949	63.8	C-
31	Quimby & Tully Rd	29.0	0.436	33.7	C	36.8	0.626	41.3	D+
32	Capitol Expwy & Tully Rd	46.3	0.876	54.3	D	45.0	0.809	58.9	D+
33	Monterey Hwy & Umbarger Rd	27.5	0.911	28.0	C	22.9	0.732	22.5	D
34	Senter Rd & Umbarger Rd	12.9	0.758	14.0	B	12.2	0.676	17.2	C+
35	Monterey Hwy & Lewis Rd	16.8	0.731	17.1	B	23.1	0.612	18.5	B
36	Senter Rd & Lewis Road	25.5	0.645	18.9	C	23.6	0.396	16.9	C
37	Monterey Hwy & Capitol Expwy WB	16.0	0.638	18.1	B	15.1	0.522	9.1	B
38	Monterey Hwy Capitol Expwy EB	25.2	0.786	31.6	C	17.2	0.594	14.5	B
39	Monterey Hwy & Senter Rd	21.6	0.678	23.2	C	28.8	0.642	45.4	C
40	Senter Rd & Capitol Expwy	48.2	0.816	56.7	D	63.6	0.991	80.4	E
41	McLaughlin Ave & Capitol Expwy	46.5	0.820	53.6	D	46.2	0.886	56.6	D

Average Delay - in seconds per vehicle
LOS – Level of Service

2.6.1 Intersection Operation

According to the City of San Jose intersection level of service standards, all study intersections would operate at acceptable levels of service for the cumulative condition, with the exception of the Almaden Road & Curtner Avenue, SR 87 NB on/off ramps & Curtner Avenue, Monterey Highway & Curtner Avenue – Tully Road. The intersection of Senter Road & Capitol Expressway intersection would continue to operate at LOS E during the P.M. peak hour, as it does today.

The addition of cumulative traffic would deteriorate the intersection LOS "D" at Almaden Road & Curtner Avenue to LOS "E" during the P.M. peak hour. The LOS at the intersection of SR 87 NB on/off ramps & Curtner Avenue would deteriorate from LOS "D" to "E+" during the P.M> peak hour. The intersection of Monterey Highway & Curtner Avenue – Tully Road would deteriorate from LOS "D-" under the project condition to LOS "E+" during the P.M. peak hour.

The addition of cumulative traffic would exceed the significance threshold at these three intersections. These would be considered significant cumulative impacts.

2.6.2 Other Cumulative Growth

The City of San Jose is currently processing an Environmental Impact Report (EIR) for the San Jose Downtown Strategy 2000 project. The downtown project consists of:

- up to 10 million square feet of office land use
- 10,000 residential units
- 1.2 million square feet of retail land use
- 2,500 hotel rooms

The project is anticipated to cause impacts along the following corridors:

- 10^{th} and 11^{th} streets
- Almaden/Vine
- Bird Avenue
- Coleman Avenue

Although the downtown project would add substantial traffic to the Monterey Road corridor, the analysis did not identify traffic-related impacts along this corridor.

Based on LOS results under the Goble Lane Project cumulative condition (**Table 11**), study intersections along the 10^{th} street corridor are projected to operate at acceptable levels of service.

3.0 SANTA CLARA COUNTY CONGESTION MANAGEMENT PROGRAM (CMP)

This section provides an evaluation of traffic and transportation issues related to the proposed mixed-used development project according to CMP traffic analysis methodology. Based on consultation with the City of San Jose staff and per the CMP Guidelines for Traffic Impact Analysis, the following twelve CMP intersections were selected for analysis as part of the Santa Clara Congestion Management Program:

1. First Street & Willow Street
2. First Street & Keyes Street
3. Monterey Highway & Alma Avenue
4. Monterey Highway & Curtner Avenue – Tully Road
5. Monterey Highway & Old Tully Road
6. Senter Road Street & Tully Road
7. McLaughlin Avenue & Tully Road
8. Monterey Highway & Capitol Expressway WB on/off ramp
9. Monterey Highway & Capitol Expressway EB on/off ramp
10. Monterey Highway & Senter Road
11. Senter Road & Capitol Expressway
12. McLaughlin Avenue & Capitol Expressway

Figure 13 illustrates each study intersection and its location in relation to the project area.

The operation of these intersections was evaluated for the following scenarios:

Scenario 1: Existing Condition – Level of service based on existing peak-hour volumes.

Scenario 2: Background Condition – Existing peak-hour volumes plus growth from approved, but not yet constructed, developments in the vicinity of the proposed project that would occur prior to the completed construction of the proposed mixed-used development project.

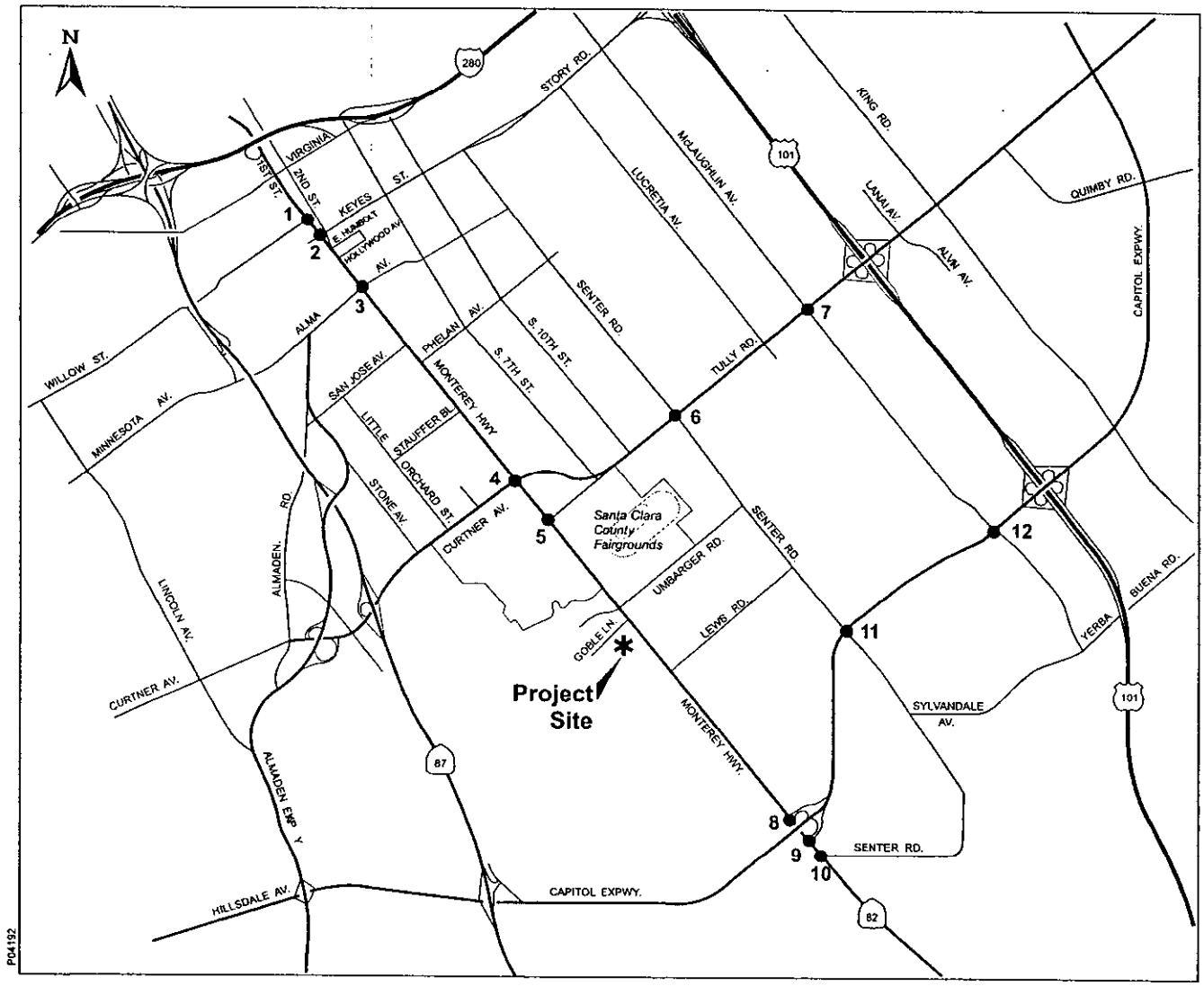
Scenario 3: Project Condition – Background peak-hour volumes plus project-generated traffic estimated for the mixed-use development project.

Scenario 4: Future Growth Condition – Existing peak-hour volumes plus a 1.2% traffic growth per year to year 2009 estimated in the vicinity of the proposed project plus traffic generated by the Goble Lane Project.

Traffic-related impacts along the nearby freeways were also analyzed. Freeway segments analyzed include:

- SR 87 between Curtner Avenue and I-280
- SR 87 between Curtner Avenue and SR 85
- I-280 between SR 87 and Tenth Street

- I-280 between Tenth Street & US 101
- US 101 between Story Road and Tully Road
- US 101 between Tully Road and Capitol Expressway
- US 101 between Capitol Expressway and Blossom Hill Road



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● CMP Study Intersection

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Figure 13
Project Site and
CMP Roadway Network

3.1 EXISTING TRANSPORTATION SYSTEM

A description of the existing transportation system facilities including roadway network facilities, intersections, transit service, bicycles, pedestrians and parking can be found in section 2.0 of this report.

3.1.2 Intersection Level of Service

Existing traffic conditions at CMP signalized intersections have been evaluated for A.M. and P.M. peak hours using the operational analysis procedures from the Transportation Research Board's *2000 Highway Capacity Manual* as required by the Santa Clara County Congestion Management Program

3.1.3 Intersection Level of Service Methodology

The Santa Clara County Congested Management Program designated intersection level of service software analysis program is *TRAFFIX*. *TRAFFIX* evaluates CMP signalized intersections operation on the basis of average stopped delay for all vehicles at the intersection.

3.1.4 Level of Service Definition

The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of roadway performance. Level of service can range from "A" representing free-flow conditions, to "F" representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for peak hour in urban areas, with average delays in the range of 25 to 40 seconds. LOS E is approaching capacity and LOS F represents conditions at or above capacity, with average delays over 80 seconds.

The correlation between average delay and level of service is contained in **Table 1** as part of section 2 of this report.

3.1.5 Standards of Significance

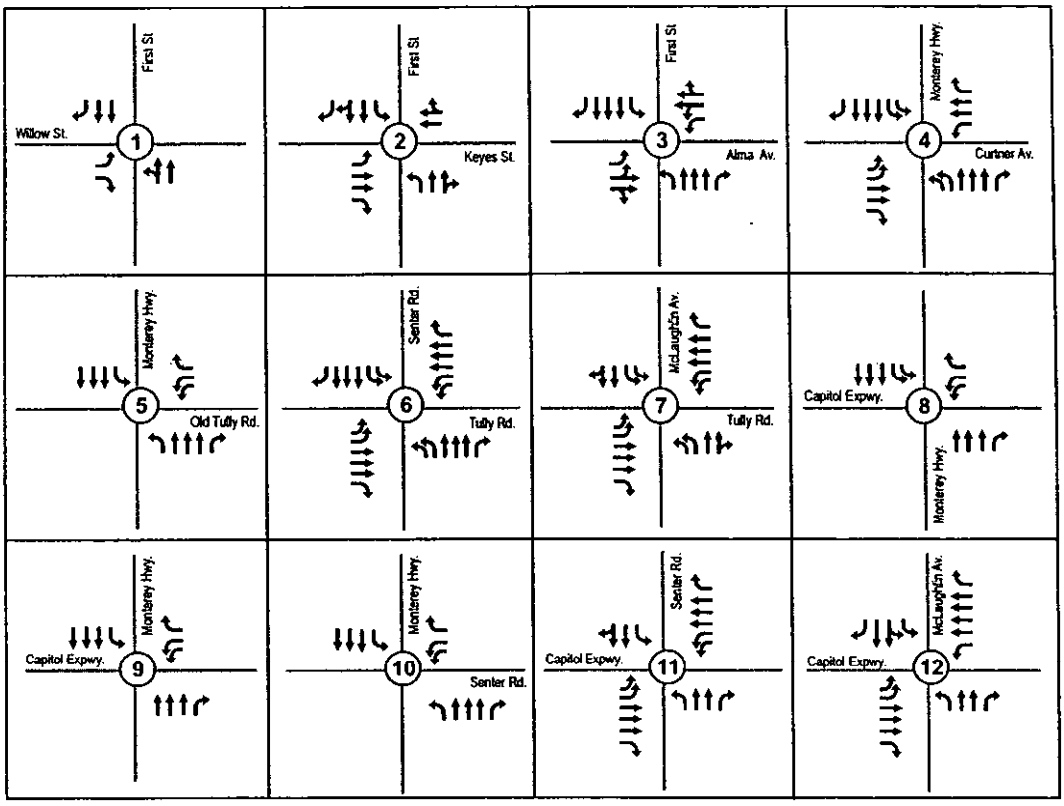
According to the County of Santa Clara, the performance standard of a CMP facility is LOS "E". The level of service at CMP intersections is based on evaluations of all intersection movements.

3.2 EXISTING TRAFFIC OPERATIONS

The City of San Jose provided existing A.M. peak hour and P.M. peak hour intersection level of service calculations for each of the 12 existing CMP study intersections.

Figure 14 illustrates the current lane geometry and traffic control at each of the study area intersections. **Figure 15** illustrates the existing traffic volumes at each study intersection. The intersections and their corresponding existing levels of service are presented in **Table 12**.

Appendix F includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours.



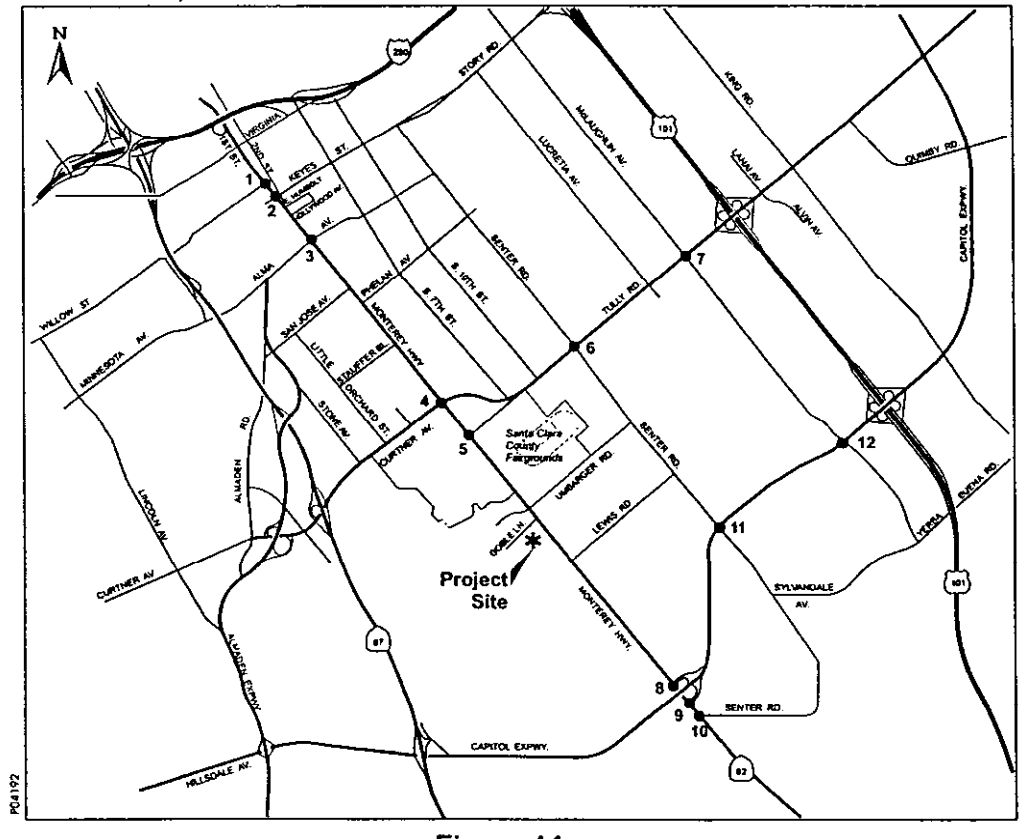


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Figure 14
Existing CMP Intersection Lane Geometry and Traffic Control

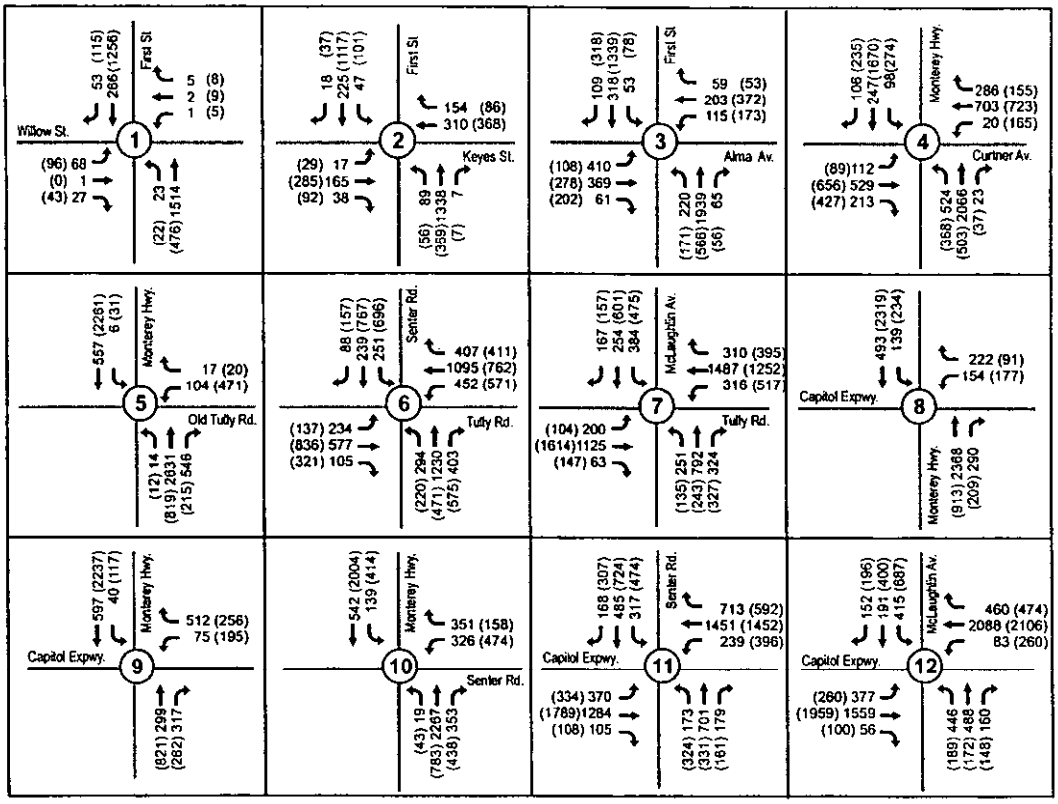

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Figure 15
Existing Condition
CMP Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 12
Existing Condition

#	Intersection Name	A.M. Peak		P.M. Peak	
		Avg. Delay	LOS	Avg. Delay	LOS
1.	First Street & Willow Street	5.1	A	7.9	A
2.	First Street & Goodyear-Keyes Street	27.9	C	29.3	C
3.	Monterey Highway & Alma Avenue	36.3	D+	37.9	D+
4.	Monterey Highway & Curtner Ave-Tully Road	37.5	D+	46.3	D
5.	Monterey Highway & Old Tully Road	5.9	A	17.7	B
6.	Senter Road & Tully Road	40.5	D	42.8	D
7.	McLaughlin Avenue & Tully Road	48.0	D	44.5	D
8.	Monterey Highway & Capitol Expressway WB	15.5	B	12.9	B
9.	Monterey Highway & Capitol Expressway EB	25.0	C	14.3	B
10.	Monterey Highway & Senter Road	22.8	C+	28.6	C
11.	Senter Road & Capitol Expressway	48.8	D	62.1	E
12.	McLaughlin Avenue & Capitol Expressway	48.7	D	45.3	D

Average Delay - in seconds per vehicle
LOS – Level of Service

3.2.1 Intersection Operation

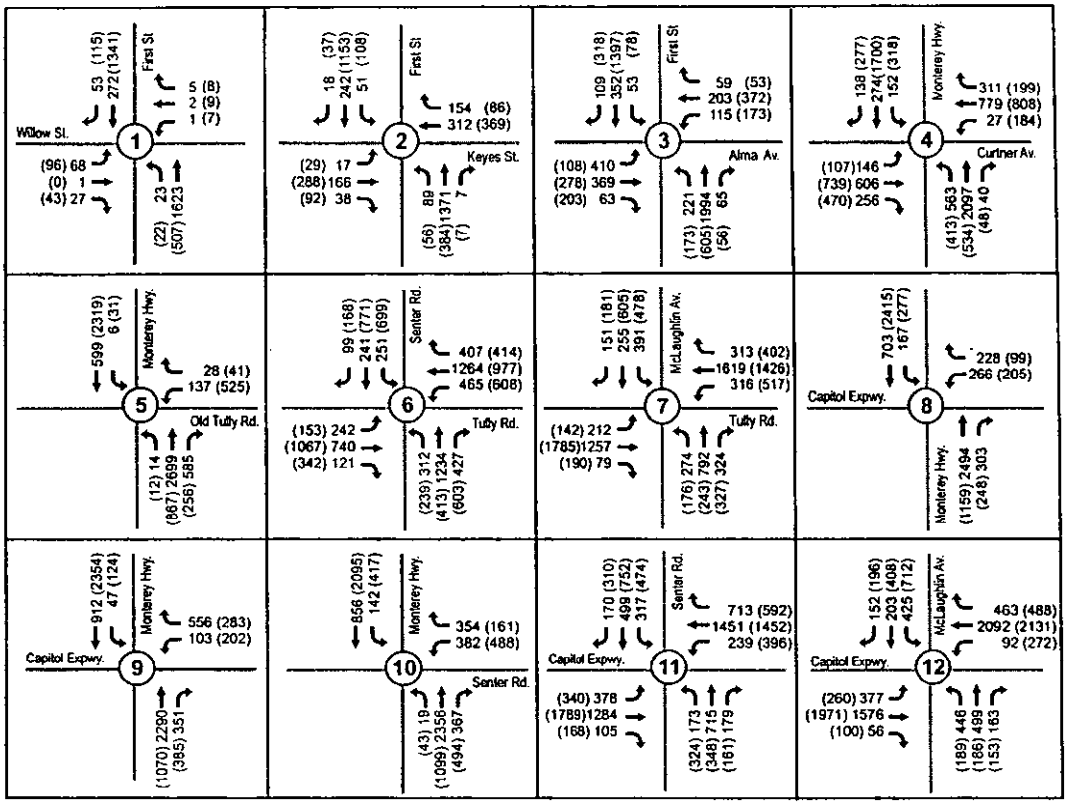
According to the Santa Clara County Congestion Management Program intersection level of service standards, all study intersections operate at acceptable levels of service for the existing conditions.

3.3 BACKGROUND CONDITION

This section discusses the traffic operating conditions at the study intersections under the background condition. The background condition includes the traffic expected to be generated by the approved projects (as detailed in the Approved Trip Inventory (ATI) database, provided by the City of San Jose staff in September 2004) prior to the completion of the proposed development. In addition, project generated trips from the Tully Road Medical Office project, the Venetian Terrace Residential project, and the Paloma Centre Development project were also added to the local street network and study intersections. **Appendix C** includes the ATI sheets and approved project trips for projects not yet in the City of San Jose ATI database.

Figure 16 illustrates the background traffic volumes at each study intersection. Intersection operational levels of service along with their associated critical and average delays are summarized in **Table 13**.

Appendix F includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours.



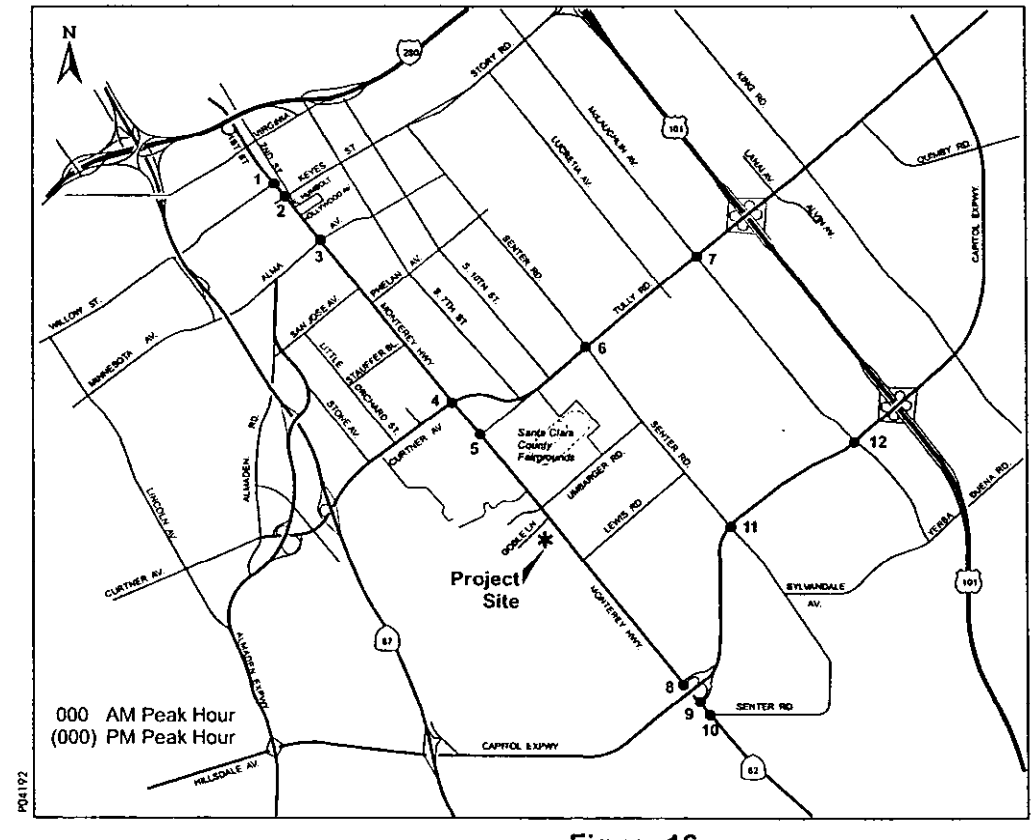


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Figure 16
Background Condition
CMP Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 13
Background Condition

#	Intersection Name	A.M. Peak		P.M. Peak	
		Avg. Delay	LOS	Avg. Delay	LOS
1.	First Street & Willow Street	5.0	A	7.7	A
2.	First Street & Goodyear-Keyes Street	28.1	C	29.3	C
3.	Monterey Highway & Alma Avenue	36.9	D+	37.7	D+
4.	Monterey Highway & Curtner Ave-Tully Road	39.2	D	49.5	D
5.	Monterey Highway & Old Tully Road	7.0	A	19.0	B-
6.	Senter Road & Tully Road	40.9	D	45.1	D
7.	McLaughlin Avenue & Tully Road	49.0	D	46.3	D
8.	Monterey Highway & Capitol Expressway WB	17.2	B	14.2	B
9.	Monterey Highway & Capitol Expressway EB	26.2	C	14.8	B
10.	Monterey Highway & Senter Road	22.5	C+	28.8	C
11.	Senter Road & Capitol Expressway	49.2	D	63.6	E
12.	McLaughlin Avenue & Capitol Expressway	49.3	D	46.2	D

Average Delay - in seconds per vehicle
LOS – Level of Service

3.3.1 Intersection Operation

According to the Santa Clara County Congestion Management Program intersection level of service standards, all study intersections would operate at acceptable levels of service under the background conditions.

3.4 PROJECT CONDITION

This section evaluates background traffic conditions plus project-generated traffic estimated for the proposed project. The amount of traffic associated with a project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. Trip generation is the process of predicting the number of peak hour trips a proposed development would contribute to the roadways, and whether these trips would be entering or exiting the site. After the number of trips is determined, the distribution process projects the direction these trips use to approach and depart the site, from a regional perspective. Trip assignment involves determining which specific roadways a vehicle would use to travel between its origin and destination.

3.4.1 Significance Criteria and Project Impacts

According to the Santa Clara County Congestion Management Program, the standards of significance for traffic impacts are:

For CMP intersection, a significant impact for a project is defined as:

- When the addition of project traffic causes intersection's LOS under background condition to deteriorate from acceptable level of service (LOS) "E" to LOS "F", or
- For intersections already operating at unacceptable LOS F, and under the project, critical movement delay increase by the proposed project causes:
  - An increase in critical delay by 4.0 or more seconds; and,
  - An increase in the critical volume-to-capacity ratio (v/c) of 0.010 or more.

If there is a decrease (negative change) in critical delay or v/c with the added traffic, then only one of the two criteria need to apply to determine the impact of the proposed project.

For CMP freeway segment, a significant impact for a project is defined as:

- If a freeway segment already operates at LOS "F", and under the project condition, traffic increases by 1% or more of capacity.

3.4.2 Trip Generation

Trip generation for the proposed project was based on the City of San Jose Trip Generation Rates.

In consultation with City of San Jose staff, a capture rate reduction of 25% was applied to the retail component due to the project's mixed-use (housing-retail) components. In addition, a 13% vehicle trip-reduction was applied to the retail components, in accordance with VTA policy for mixed-use development projects, for its residential-retail mixed-use. The 13%

retail vehicle trip-reduction was applied to the residential land use, as most of these trips were assumed to be internal trips.

The proposed project is estimated to generate a net total of 7,492 daily trips, including an additional 717 A.M. peak hour trips (253 inbound, 464 outbound) and 745 trips (479 inbound, 266 outbound) during the P.M. peak hour. **Table 14** summarizes the trip generation for the project condition during the A.M. and P.M. peak hours, respectively.

TABLE 14

TRIP GENERATION – PROPOSED PROJECT

Land Use	Size	Units	Daily		A.M. PEAK							P.M. PEAK						
					Peak Hour	Percent (%)		Rate		Vehicle Trips		Peak Hour	Percent (%)		Rate		Vehicle Trips	
			Rate	Trips	Rate	In	Out	In	Out	In	Out	Rate	In	Out	In	Out	In	Out
RETAIL	18	k.s.f.[2]	40	720	0.80	70	30	0.56	0.24	10	4	3.60	50	50	1.80	1.80	32	32
Capture Rate Reduction (25%)				*-180*						*-3*	*-1*						*-8*	*-8*
Mixed-Use Reduction[1] (13%)				*-70*						*-1*	*0*						*-3*	*-3*
SUB-TOTAL (retail)				**470**						**7**	**3**						**21**	**21**
RESIDENTIAL																		
Apartments	320	d.u.[3]	6.0	1,920	0.60	35	65	0.21	0.39	67	125	0.60	65	35	0.39	0.21	125	67
Condominiums/Townhomes	522	d.u.[3]	7.5	3,915	0.75	35	65	0.26	0.49	137	254	0.75	65	35	0.49	0.26	254	137
Single-Family	127	d.u.[3]	9.9	1,257	0.99	35	65	0.35	0.64	44	82	0.99	65	35	0.64	0.35	82	44
Total Trips				7,092						248	461						461	248
Mixed-Use Reduction[1] (13%)				*-70*						*-1*	*0*						*-3*	*-3*
SUB-TOTAL (residential)				**7,022**						**247**	**461**						**458**	**245**
PROJECT TOTAL TRIPS				**7,812**						**258**	**465**						**493**	**280**
Total Trip Reduction				*-320*						*-5*	*-1*						*-14*	*-14*
PROJECT GRAND TOTAL TRIPS				**7,492**						**253**	**464**						**479**	**266**

Source: City of San Jose, Department of Public Works, Transportation Division, Common Vehicular Trip Generation Rates for the San Jose Area, March 1994.

[1] Santa Clara Valley Transportation Authority, Transportation Impact Analysis Guidelines. February 1998.

[2] k.s.f.: 1,000 square feet

[3] d.u.: dwelling-unit

3.4.3 Trip Distribution

The approach and departure for project trips of the proposed mixed-use project were estimated based on existing travel patterns and the locations of complementary land uses. **Figure 17** illustrates the trip distribution of the proposed retail development project. **Figure 18** illustrates the trip distribution of the proposed residential development project.

3.4.4 Trip Assignment

Project-generated trips were assigned to the roadway network based on access points and likely travel patterns. The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the project condition.

Figure 19 illustrates the project trips at each of the study intersections for the A.M. and P.M. peak hours under the project condition. **Figure 20** illustrates the project scenario traffic volumes at each of the study intersections for the A.M. and P.M. peak hours.

Intersection operational levels of service along with their associated critical and average delays are summarized in **Table 15**.

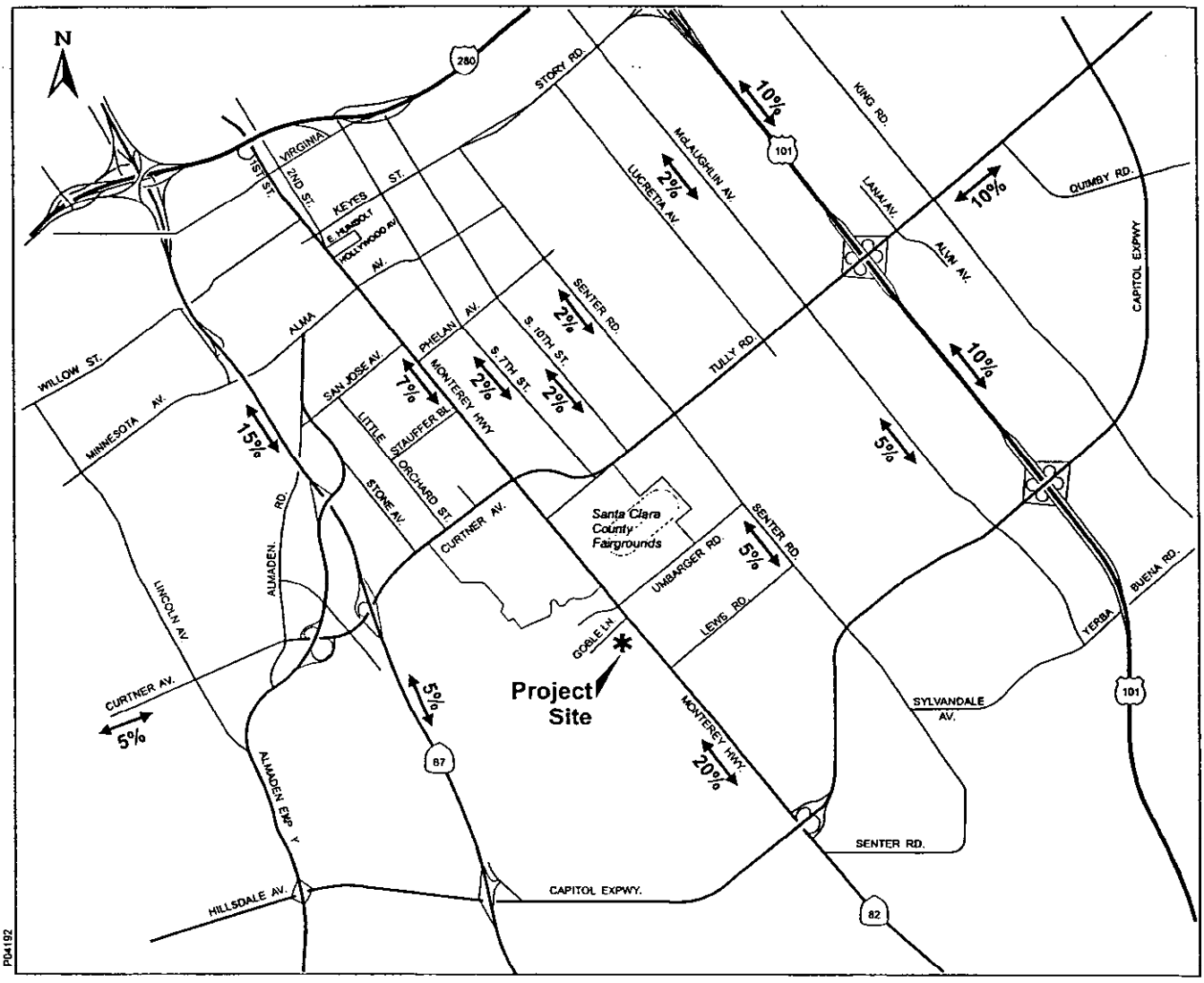

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Figure 17
Project Trip Distribution – Retail

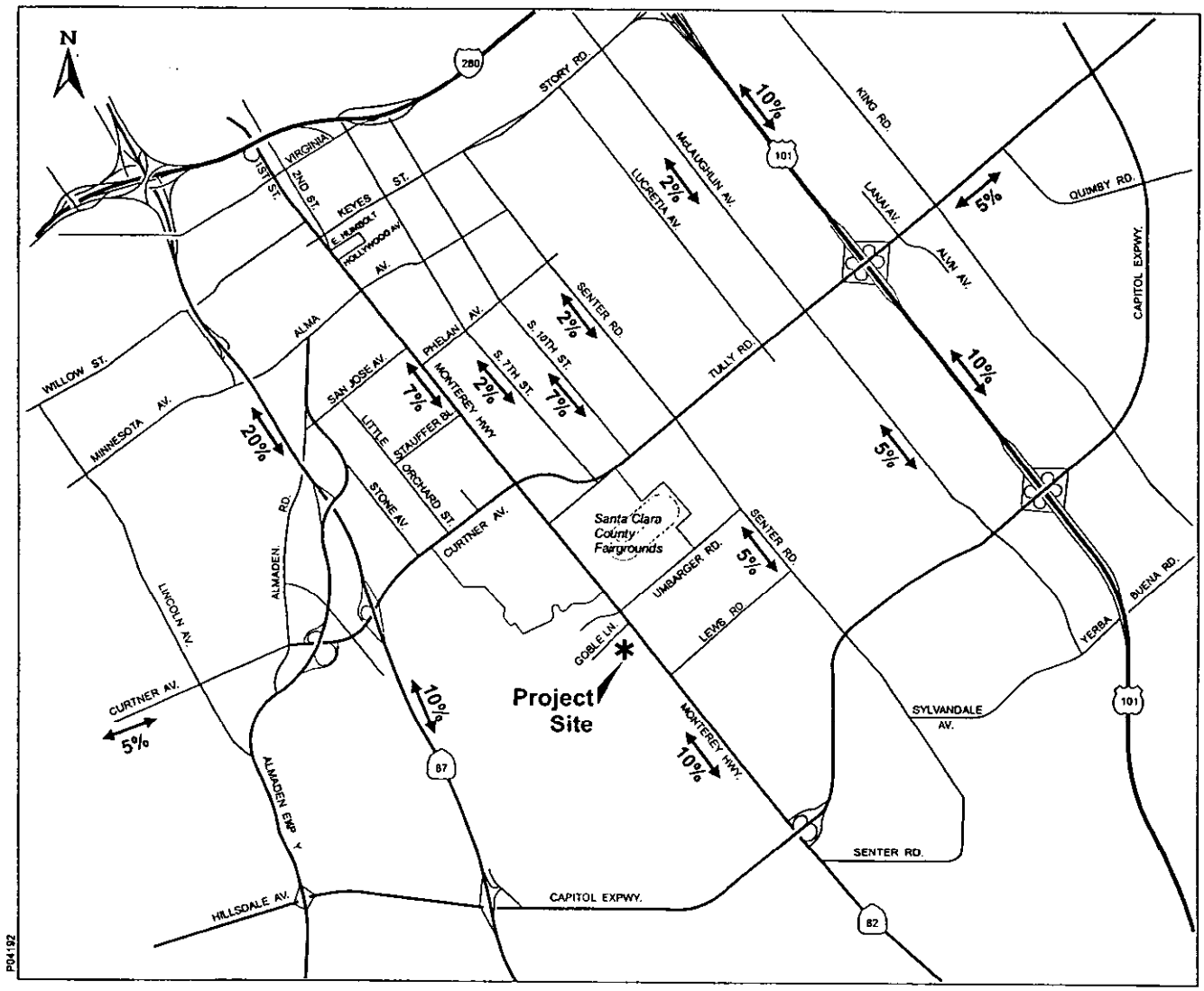

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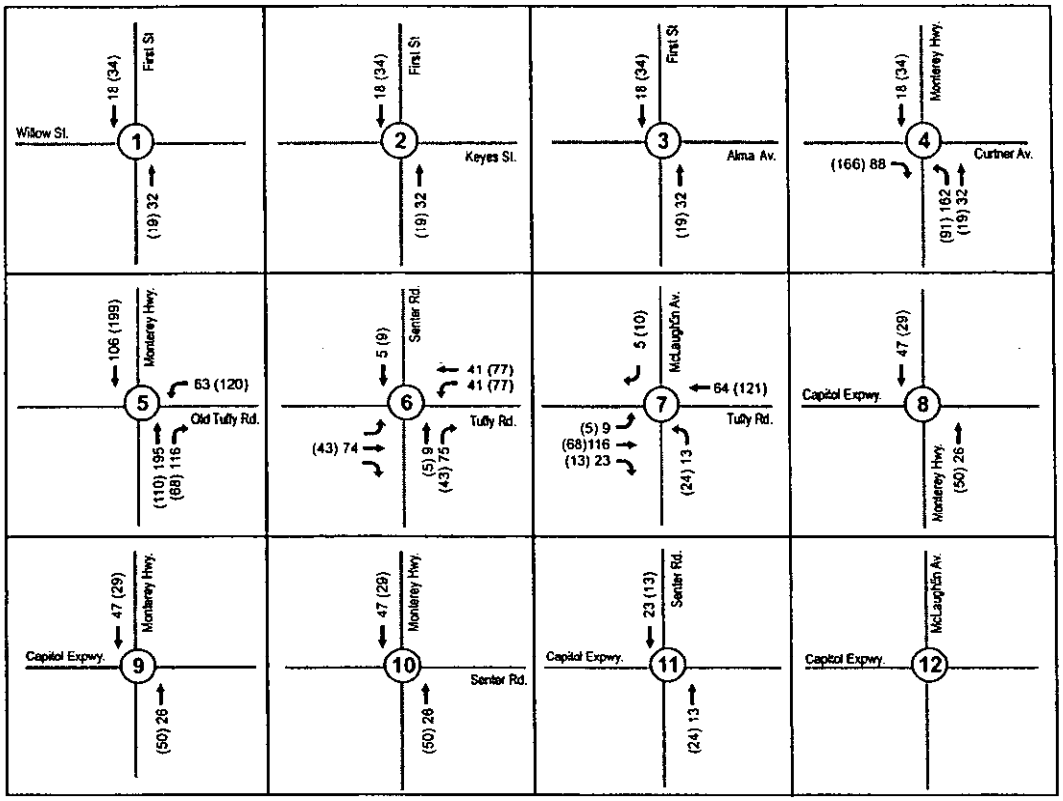
Figure 18
Project Trip Distribution – Residential



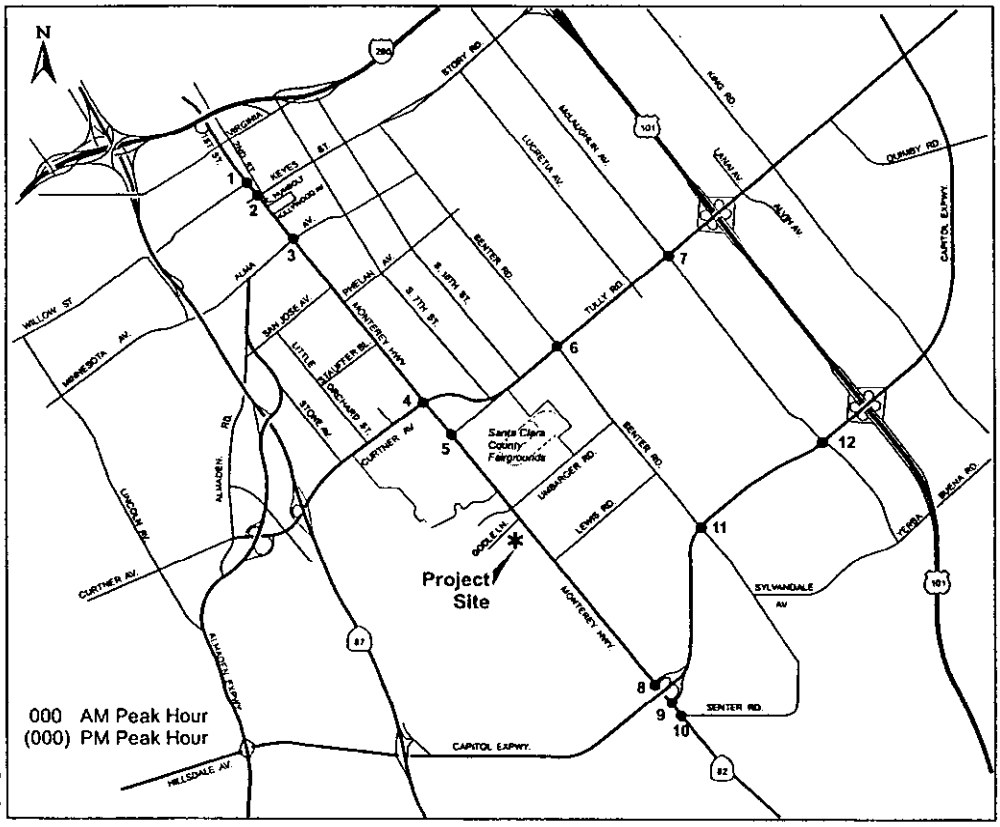


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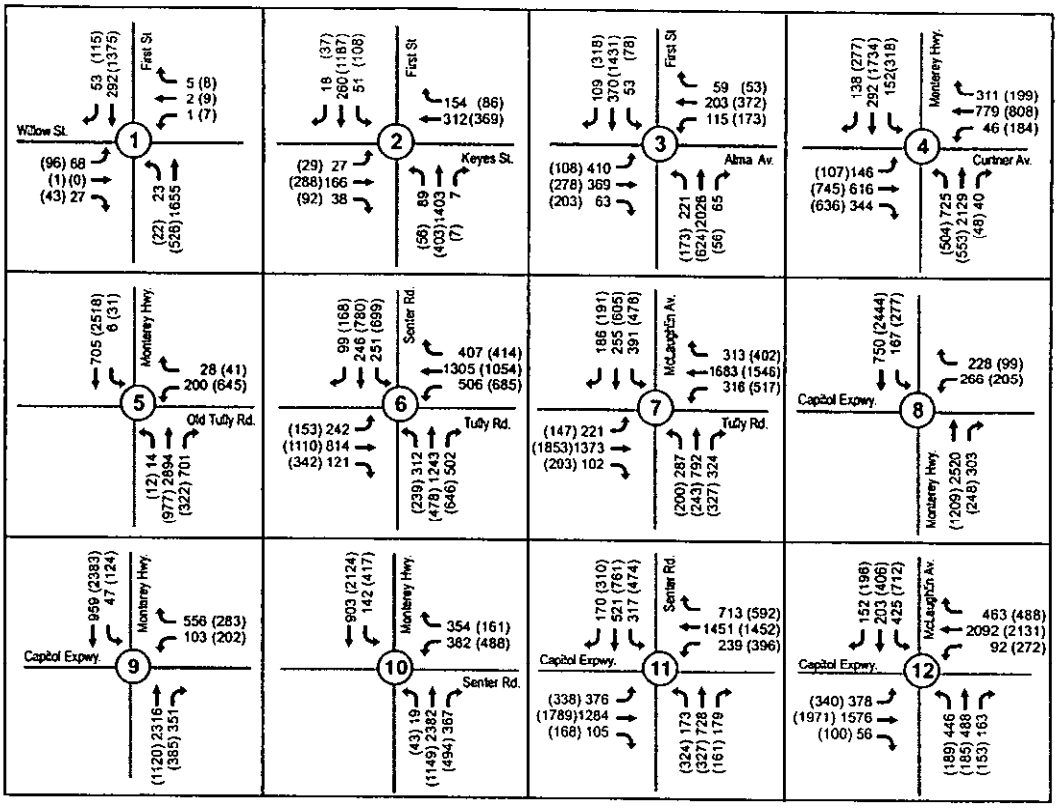
Figure 19
Project Trips
Weekday AM and PM Peak Hour



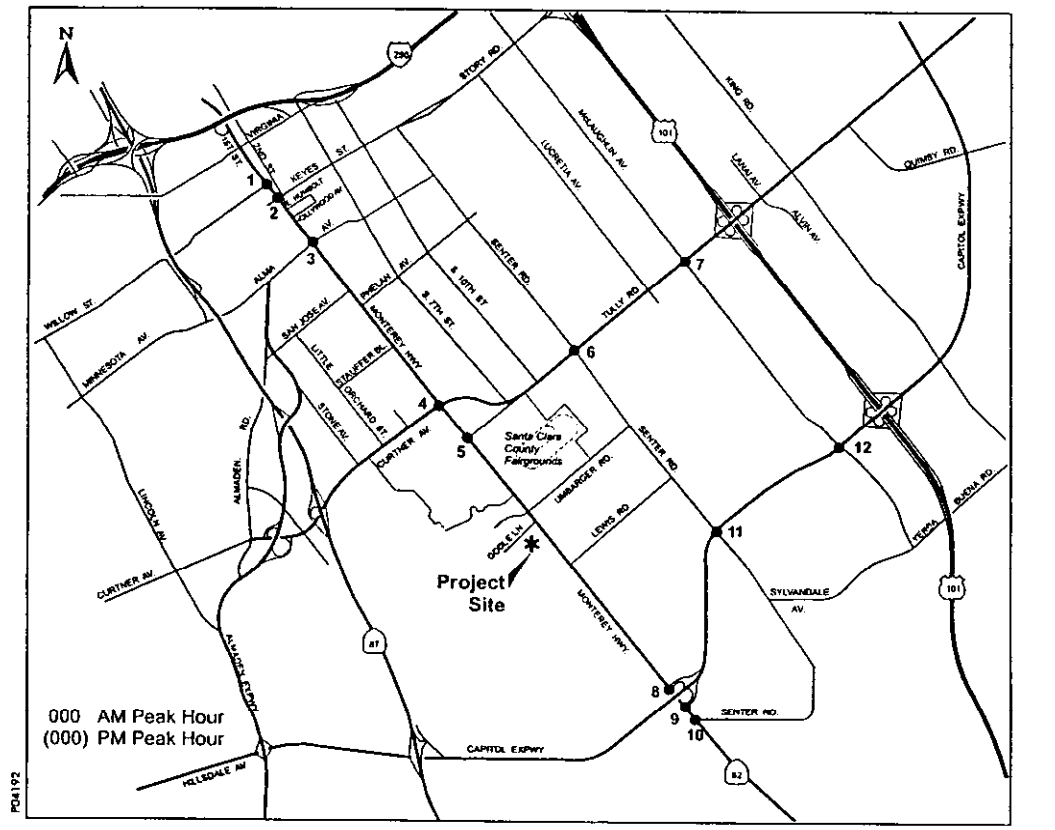


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Figure 20
Project Condition
CMP Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 15
Project Condition

#	Intersection Name	A.M. Peak		P.M. Peak	
		Avg. Delay	LOS	Avg. Delay	LOS
1.	First Street & Willow Street	5.0	A	7.6	A
2.	First Street & Goodyear-Keyes Street	28.0	C	29.2	C
3.	Monterey Highway & Alma Avenue	37.4	D+	37.5	D+
4.	Monterey Highway & Curtner Ave-Tully Road	38.8	D+	53.6	D-
5.	Monterey Highway & Old Tully Road	8.8	A	21.6	C+
6.	Senter Road & Tully Road	41.2	D	46.3	D
7.	McLaughlin Avenue & Tully Road	49.7	D	47.0	D
8.	Monterey Highway & Capitol Expressway WB	17.0	B	14.1	B
9.	Monterey Highway & Capitol Expressway EB	26.1	C	14.8	B
10.	Monterey Highway & Senter Road	22.3	C+	28.8	C
11.	Senter Road & Capitol Expressway	49.4	D	64.3	E
12.	McLaughlin Avenue & Capitol Expressway	49.3	D	46.2	D

Average Delay - in seconds per vehicle
LOS – Level of Service

3.4.5 Intersection Operation

According to the Santa Clara County Congestion Management Program intersection level of service standards, all study intersections would operate at acceptable levels of service under the project condition.

3.4.6 Transit Analysis

Based on observations of the capacity and occupancy rates of the public transit routes servicing the project area, it was concluded that transit trips to be generated by the proposed project would not significantly impact the public transit service. With a typical transit mode share of one to two percent, the proposed project would generate 6 to 13 peak-hour transit trips each weekday, which would not significantly increase load factors on transit vehicles.

3.4.7 Bicycles and Pedestrians

The study intersections are currently signalized and equipped with pedestrian crossing signals and crosswalks. The expected increase in vehicular traffic volumes at these intersections

would not significantly impact the pedestrian movements. A new crosswalk would be provided at the new signalized intersection of Monterey Highway and Project Site Entrance

Also, the pedestrian movements along the roadway network adjacent to the project site would continue to be accommodated by provided sidewalks (existing along the project frontage), and therefore no adverse impacts are anticipated.

3.4.8 Site Access and Internal Circulation

Project access and circulation were analyzed for the proposed mixed-used development project. The site plan (Figure 2) indicates vehicular access to the site via two driveways. The northern driveway would provide right-turn in, right-turn out only. The southern driveway would provide full access via a new traffic signal at Monterey Road and the southerly project entrance. With this new signalized intersection, vehicles traveling northbound on Monterey Highway wanting to access the site would make a left-turn at the signalized intersection. Vehicles traveling in the southbound direction would make a right at the project site intersection. Vehicles exiting the site would also be allowed to make left and right turns onto Monterey Highway. Truck and emergency vehicle access would also be provided via this new signalized intersection.

Internal Circulation

The site plan also shows a drive aisle to the north-west corner of the project site and one aisle to the south-west corner of the site. These aisles would provide truck and emergency vehicle access to the back (western side) of the site. One aisle is located in the middle of the project site to provide access from one side of the project to the other, as well as access to the park.

All parking stalls are shown to be 90 degrees to their respective driving aisles. Sight distance is expected to be adequate; there are no roadway configurations, natural hills, or sharp horizontal curves in the roadway that are anticipated to impede with vehicular sight distance.

The overall project internal design appears acceptable. No adverse internal circulation impacts related to the proposed project are anticipated.

3.5 FUTURE GROWTH CONDITION

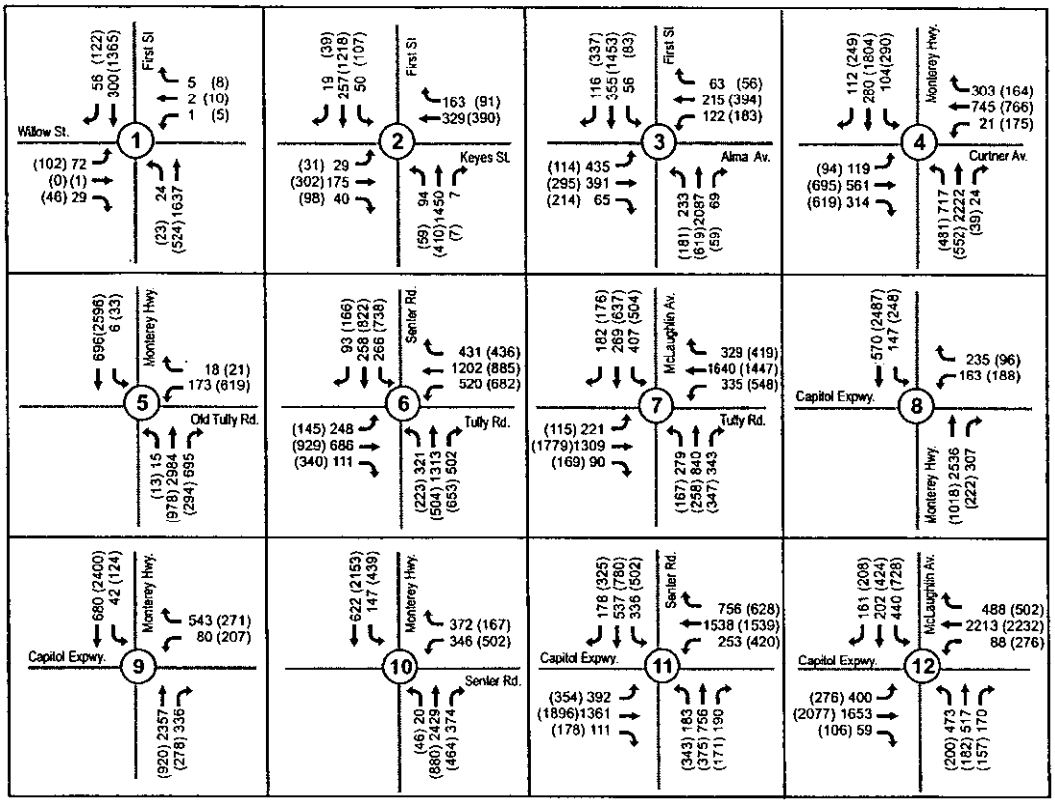
A growth rate of 1.2 percent per year (to project opening year 2009), was added to the Existing Condition turning movement volumes at the study intersections in order to evaluate the Future Growth Baseline Condition. In addition, the proposed project was considered as pending under the future-growth scenario.

3.5.1 Intersection Operation

Figure 21 illustrates the future-growth scenario traffic volumes at each of the study intersections under the A.M. and P.M. peak hour, respectively.

Intersection operational levels of service along with their associated critical and average delay are summarized in **Table 16.**

Appendix F includes the detailed TRAFFIX calculation level of service analysis sheets, including the weekday A.M. and P.M. peak hours.



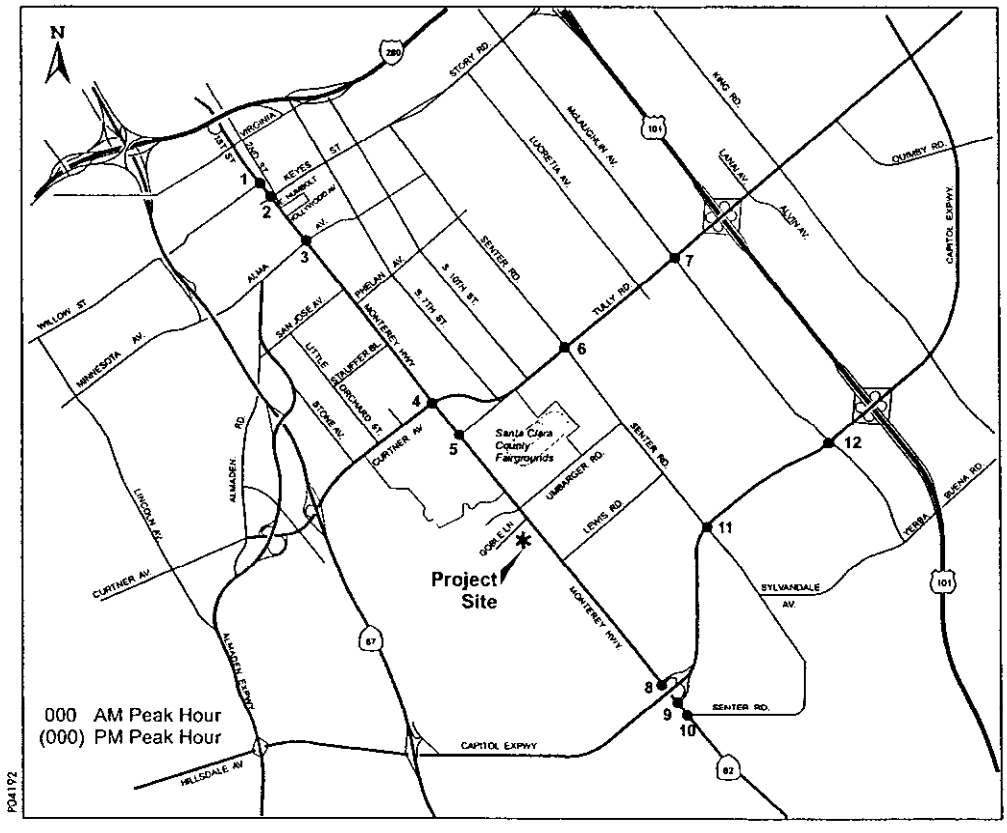


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Figure 21
Future Growth Condition
CMP Intersection Traffic Volumes
Weekday AM and PM Peak Hour

TABLE 16
Future Growth Condition - Level of Service Summary

#	Intersection Name	A.M. Peak		P.M. Peak	
		Avg. Delay	LOS	Avg. Delay	LOS
1.	First Street & Willow Street	5.0	A	7.9	A
2.	First Street & Goodyear-Keyes Street	28.2	C	29.6	C
3.	Monterey Highway & Alma Avenue	38.6	D	38.8	D+
4.	Monterey Highway & Curtner Ave-Tully Road	37.1	D	51.9	D-
5.	Monterey Highway & Old Tully Road	7.9	D	21.0	C+
6.	Senter Road & Tully Road	41.0	D	45.4	D
7.	McLaughlin Avenue & Tully Road	49.2	D	47.9	D
8.	Monterey Highway & Capitol Expressway WB	15.3	B	13.0	B
9.	Monterey Highway & Capitol Expressway EB	25.0	C	14.5	B
10.	Monterey Highway & Senter Road	22.8	C	29.4	C
11.	Senter Road & Capitol Expressway	50.0	D	72.1	E
12.	McLaughlin Avenue & Capitol Expressway	48.6	D	48.4	D

Average Delay - in seconds per vehicle
LOS – Level of Service

According to the Santa Clara County Congestion Management Program intersection level of service standards, all study intersections would operate at acceptable levels of service for the (future-growth) conditions.

3.6 FREEWAY LEVEL OF SERVICE

Existing traffic conditions at selected freeway segments have been evaluated for A.M. and P.M. peak hours using the operational analysis procedures from the Transportation Research Board's *2000 Highway Capacity Manual* as required by the Santa Clara County Congestion Management Program.

3.6.1 Freeway Level of Service Methodology

As described in the 2000 Highway Capacity Manual, the determination of LOS for freeway segments is based on density, with density calculated as:

$$d = \frac{V}{N \times S}$$

where, d: density (vehicles per mile per lane, vpmpl)

V: peak hour volume (vehicles per hour, vph)

N: number of travel lanes (lanes)

S: average travel speed (miles per hour, mph)

Table 17 identifies the ranges of density used to define levels of service for freeway segments. LOS ranges from LOS A, or free-flow conditions, to LOS F, or highly congested conditions.

TABLE 17

Level of Service Definition
Freeway Segments

Level Of Service	Density*	Speed (miles/hr)	Description of Traffic Condition*
A	Density ≤ 11.0	67.0 ≤ speed	Free flow operations
B	11.0 < density ≤ 18.0	66.5 ≤ speed < 67.0	Reasonably free-flow, and free-flow speeds are maintained.
C	18.0 < density ≤ 26.0	66.0 ≤ speed < 66.5	Flow with speeds and or near the free-flow speed
D	26.0 < density ≤ 46.0	46.0 ≤ speed < 46.0	Level at which speed begin to decline with increasing flow
E	46.0 < density ≤ 58.0	35.0 ≤ speed < 46.0	Operation at capacity
F	58.0 < density	Speed < 35.0	Breakdowns in vehicular flow

Source: Santa Clara County Congestion Management Program – Traffic LOS Analysis Guidelines, June 2003,
* Density based on passenger cars per mile per lane (pcpmpl).

3.6.2 Standards of Significance

According to the County of Santa Clara, the performance standard of a CMP facility is LOS "E". The level of service at CMP freeway segments is based on density in terms of passenger cars per mile per lane (pcpmpl).

3.6.3 Freeway Segment Operation

A freeway segment is required to be included in the transportation impact analysis if it meets any of the following requirements.

1. The proposed development project is adjacent to one of the freeway segments access or egress points; or

2. Based on engineering judgment, lead agency staff determines that the freeway segment should be included in the analysis.

Based on those criteria, the following freeway segments were analyzed:

- SR 87 between Curtner Avenue and Almaden Expressway
- SR 87 between Almaden Expressway and Alma Avenue
- SR 87 between Alma Avenue and I-280

- I-280 between State Route 87 and 10th Street
- I-280 between 10th Street and McLaughlin Avenue
- I-280 between McLaughlin Avenue and US-101
- US 101 between Tully Road and Story Road
- US 101 between Capitol Expressway and Tully Road
- US 101 between Yerba Buena Road and Capitol Expressway

According to the 2003 Santa Clara County Freeway Monitoring Report, the following segments currently operate at unacceptable level of service "F" during the A.M. peak hours:

- Northbound segments of mixed-flow or single occupant vehicle (SOV) along US State Route 87 between Capitol Expressway and Alma Avenue.

- Westbound segments of mixed-flow or single occupant vehicle (SOV) along Interstate 280 between US Highway 101 and State Route 87.

The following segments currently operate at unacceptable level of service "F" during the P.M. peak hours:

- Northbound segments of mixed-flow or single occupant vehicle (SOV) along US State Route 87 between Capitol Expressway and Alma Avenue.

- Westbound segments of mixed-flow or single occupant vehicle (SOV) along Interstate 280 between US Highway 101 and State Route 87.

Tables 18A and Table 18B provide a summary of the freeway segments operational conditions, including density and level of service during the A.M. and P.M. peak hours, respectively.

As show in **Table 18A** and **Table 18B,** the addition of traffic generated by the proposed project would result in an increase of more than 1% of capacity for the freeway segments below:

- SR 87 between Curtner Avenue and Almaden Expressway
- SR 87 between Almaden Expressway and Alma Avenue
- US 101 between Tully Road and Story Road

TABLE 18A

FREEWAY SEGMENT ANALYSIS - A.M. PEAK

Freeway	Segment		Direction	Lanes	EXISTING [1]				PROJECT - HIGH NTENSITY				
	From/To	To/From			Average Speed	Volume	Density	LOS	Project Trips	Density	LOS	% Impact of Capacity	Significant Impact
US 101	Yerba Buena Rd	Capitol Expwy	NB	3	48	6480	45	D	26	45.2	D	0.38%	
US 101	Yerba Buena Rd	Capitol Expwy	NB-HOV	1	67	1140	17	A					
US 101	Capitol Expwy	Tully Rd	NB	3	38	6160	54	E	26	54.3	E	0.38%	
US 101	Capitol Expwy	Tully Rd	NB-HOV	1	65	1950	30	A					
US 101	Tully Rd	Story Rd	NB	3	38	6160	54	E	46	54.4	E	0.67%	
US 101	Tully Rd	Story Rd	NB-HOV	1	64	2110	33	A					
I-280	SR-87	10th Street	EB	4	66	6340	24	A					
I-280	10th St	McLaughlin Ave	EB	4	66	6600	25	A					
I-280	McLaughlin Ave	US-101	EB	4	65	7540	29	A					
SR-87	Capitol Expwy	Curtner Ave	NB	2	29	3770	65	F	25	65.4	F	0.54%	
SR-87	Curtner Ave	Almaden Expwy	NB	2	17	3060	90	F	92	92.7	F	2.00%	Yes
SR-87	Almaden Expwy	Alma Ave	NB	2	18	3130	87	F	92	89.5	F	2.00%	Yes
SR-87	Alma Ave	I-280	NB	2	65	3770	29	A	92	29.7	D	2.00%	
US 101	Story Rd	Tully Rd	SB	3	65	5660	29	A	26	29.2	D	0.38%	
US 101	Story Rd	Tully Rd	SB-HOV	1	67	670	10	A					
US 101	Tully Rd	Capitol Expwy	SB	3	66	5540	28	A	46	28.2	D	0.67%	
US 101	Tully Rd	Capitol Expwy	SB-HOV	1	67	800	12	A					
SR-87	I-280	Alma Ave	SB	2	67	2680	20	A	50	20.4	C	1.09%	
SR-87	Alma Ave	Almaden Expwy	SB	2	52	4370	42	D	50	42.5	D	1.09%	
SR-87	Almaden Expwy	Curtner Ave	SB	2	67	2550	19	A	50	19.4	C	1.09%	
SR-87	Curtner Ave	Capitol Expwy	SB	2	66	3170	24	A	46	24.4	C	1.00%	
I-280	US-101	McLaughlin Ave	WB	4	11	4930	112	F					
I-280	McLaughlin Ave	10th	WB	4	20	6640	83	F					
I-280	10th St	SR-87	WB	4	24	7200	75	F					

[1] 2002 Monitoring & Conformance Report. Santa Clara County Congestion Management Program. April 2003

TABLE 18B

FREEWAY SEGMENT ANALYSIS - P.M. PEAK

Freeway	Segment From/To	Segment To/From	Direction	Lanes	EXISTING [1] Average Speed	Volume	Density	LOS	PROJECT - HIGH NTENSITY Project Trips	Density	LOS	% Impact of Capacity	Significant Impact
US 101	Yerba Buena Rd	Capitol Expwy	NB	3	67	4620	23	D	48	23.2	C	0.70%	No
US 101	Yerba Buena Rd	Capitol Expwy	NB-HOV	1	67	800	12	A					
US 101	Capitol Expwy	Tully Rd	NB	3	64	6340	33	E	48	33.3	D	0.70%	No
US 101	Capitol Expwy	Tully Rd	NB-HOV	1	67	670	10	A					
US 101	Tully Rd	Story Rd	NB	3	65	5660	29	E	27	29.2	D	0.39%	
US 101	Tully Rd	Story Rd	NB-HOV	1	67	540	8	A					
I-280	SR-87	10th Street	EB	4	21	6800	81	A					
I-280	10th St	McLaughlin Ave	EB	4	25	7200	72	A					
I-280	McLaughlin Ave	US-101	EB	4	64	8450	33	A					
SR-87	Capitol Expwy	Curtner Ave	NB	2	66	3170	24	F	47	24.4	C	1.02%	
SR-87	Curtner Ave	Almaden Expwy	NB	2	66	3300	25	F	53	25.4	C	1.15%	
SR-87	Almaden Expwy	Alma Ave	NB	2	27	3670	68	F	53	68.9	F	1.15%	Yes
SR-87	Alma Ave	I-280	NB	2	66	3560	27	A	53	27.4	D	1.15%	
US 101	Story Rd	Tully Rd	SB	3	16	4510	94	A	48	95.0	F	0.70%	Yes
US 101	Story Rd	Tully Rd	SB-HOV	1	50	2200	44	A					
US 101	Tully Rd	Capitol Expwy	SB	3	40	6240	52	A	27	52.2	E	0.39%	
US 101	Tully Rd	Capitol Expwy	SB-HOV	1	67	1410	21	A					
SR-87	I-280	Alma Ave	SB	2	51	4180	41	A	96	41.9	D	2.09%	
SR-87	Alma Ave	Almaden Expwy	SB	2	16	3010	94	D	96	97.1	F	2.09%	Yes
SR-87	Almaden Expwy	Curtner Ave	SB	2	43	4210	49	A	96	50.1	E	2.09%	
SR-87	Curtner Ave	Capitol Expwy	SB	2	41	4180	51	A	26	51.3	E	0.57%	
I-280	US-101	McLaughlin Ave	WB	4	61	8780	36	F					
I-280	McLaughlin Ave	10th	WB	4	58	8820	38	F					
I-280	10th St	SR-87	WB	4	35	8120	58	F					

[1] 2002 Monitoring & Conformance Report. Santa Clara County Congestion Management Program. April 2003

4.0 CONCLUSION

This section describes the traffic impacts identified in the previous sections and presents recommended mitigation measures, if any.

4.1 CITY OF SAN JOSE TRAFFIC IMPACT ANALYSIS

4.1.1. PROJECT IMPACTS

The proposed mixed-use development project would increase traffic by 7,492 daily vehicular trips, including 717 vehicle trips during the AM peak hour and 745 vehicle trips during the PM peak hour. The addition of project-generated traffic would not result in a significant impact at any of the studied intersections under the City of San Jose traffic impact criteria.

4.1.2 FUTURE-GROWTH IMPACTS

Forecasted traffic generated by future growth would result significant impacts at the intersection of Alamaden Road & Curtner Avenue, State Route 87 (E) and Curtner Avenue and Monterey Highway & Curtner Avenue-Tully Road. The addition of cumulative traffic would deteriorate the intersection LOS "D" at Almaden Road & Curtner Avenue to LOS "E" during the P.M. peak hour. The LOS at the intersection of SR 87 NB on/off ramps & Curtner Avenue would deteriorate from LOS "D" to "E+" during the P.M. peak hour. The intersection of Monterey Highway & Curtner Avenue – Tully Road would deteriorate from LOS "D-" under the project condition to LOS "E+" during the P.M. peak hour.

In addition, the City of San Jose is currently processing an Environmental Impact Report (EIR) for the San Jose Downtown Strategy 2000 Project. The project is anticipated to cause impacts along the following corridors:

- 10^{th} and 11^{th} streets
- Almaden/Vine
- Bird Avenue
- Coleman Avenue

4.2 CMP TRAFFIC IMPACT ANALYSIS

4.2.1. PROJECT IMPACTS

The proposed mixed-use development project would increase traffic by 7,492 daily vehicular trips, including 717 vehicle trips during the AM peak hour and 745 vehicle trips during the PM peak hour. The addition of project-generated traffic would not result in a significant impact at any of the studied intersections under the CMP traffic impact criteria.

However, the addition of traffic would result in an increase of more than 1% of capacity for the freeway segments below:

- SR 87 between Curtner Avenue and Almaden Expressway
- SR 87 between Almaden Expressway and Alma Avenue
- US 101 between Tully Road and Story Road

Appendix D

AIR QUALITY IMPACT ANALYSIS FOR THE PROPOSED GOBLE LANE PLANNED DEVELOPMENT ZONING PROJECT, CITY OF SAN JOSE

Prepared for:
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November 2004

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EXISTING CONDITIONS

Air Pollution Climatology

The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

Northwest winds and northerly winds are most common in the project area, reflecting the orientation of the Bay and the San Francisco Peninsula. Winds from these directions carry pollutants released by autos and factories from upwind areas of the Peninsula toward San Jose, particularly during the summer months. Winds are lightest on the average in fall and winter. Every year in fall and winter there are periods of several days when winds are very light and local pollutants can build up.

Pollutants can be diluted by mixing in the atmosphere both vertically and horizontally. Vertical mixing and dilution of pollutants are often suppressed by inversion conditions, when a warm layer of air traps cooler air close to the surface. During the summer, inversions are generally elevated above ground level, but are present over 90 percent of the time in both the morning and afternoon. In winter, surface-based inversions dominate in the morning hours, but frequently dissipate by afternoon.

Topography can restrict horizontal dilution and mixing of pollutants by creating a barrier to air movement. The South Bay has significant terrain features that affect air quality. The Santa Cruz Mountains and Hayward Hills on either side of the South Bay restrict horizontal dilution, and this alignment of the terrain also channels winds from the north to south, carrying pollution from the northern Peninsula toward San Jose.

The combined effects of moderate ventilation, frequent inversions that restrict vertical dilution and terrain that restrict horizontal dilution give San Jose a relatively high atmospheric potential for pollution compared to other parts of the San Francisco Bay Air Basin and provide a high potential for transport of pollutants to the east and south.

Ambient Air Quality Standards

Criteria Pollutants

Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. Table 1 identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and California

state ambient air quality standards are summarized in Table 2.

The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM_{10} and $PM_{2.5}$)

The U.S. Environmental Protection Agency established new national air quality standards for ground-level ozone and for fine particulate matter in 1997. The existing 1-hour ozone standard of 0.12 PPM microns or less) is to be phased out and replaced by an 8-hour standard of 0.08 PPM. Implementation of the 8-hour standard was delayed by litigation, but was determined to be valid and enforceable by the U. S. Supreme Court in a decision issued in February of 2001.

Suspended particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. "Inhalable" PM consists of particles less than 10 microns in diameter, and is defined as "suspended particulate matter" or PM_{10}. Fine particles are less than 2.5 microns in diameter ($PM_{2.5}$). $PM_{2.5}$, by definition, is included in PM_{10}.

In 1997 new national standards for fine Particulate Matter (diameter 2.5 microns or less) were adopted for 24-hour and annual averaging periods. The current PM_{10} standards were to be retained, but the method and form for determining compliance with the standards were revised.

The State of California regularly reviews scientific literature regarding the health effects and exposure to PM and other pollutants. On May 3, 2002, the California Air Resources Board (CARB) staff recommended lowering the level of the annual standard for PM_{10} and establishing a new annual standard for $PM_{2.5}$ (particulate matter 2.5 micrometers in diameter and smaller). The new standards became effective on July 5, 2003.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important, in terms of health risk, are diesel particulate, benzene, formaldehyde, 1,3-butadiene and acetaldehyde.

Table 1: Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen. Often called photochemical smog.	•Eye Irritation •Respiratory function impairment.	The major sources ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	•Impairment of oxygen transport in the bloodstream. •Aggravation of cardiovascular disease. •Fatigue, headache, confusion, dizziness. •Can be fatal in the case of very high concentrations.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	•Increased risk of acute and chronic respiratory disease.	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	•Aggravation of chronic obstruction lung disease. •Increased risk of acute and chronic respiratory disease.	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	•Aggravation of chronic disease and heart/lung disease symptoms.	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.

Table 2: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour 8-Hour	0.12 PPM 0.08 PPM	0.09 PPM --
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual Average 1-Hour	0.05 PPM --	-- 0.25 PPM
Sulfur Dioxide	Annual Average 24-Hour 1-Hour	0.03 PPM 0.14 PPM --	-- 0.04 PPM 0.25 PPM
PM_{10}	Annual Average 24-Hour	50 $\mu g/m^3$ 150 $\mu g/m^3$	20 $\mu g/m^3$ 50 $\mu g/m^3$
$PM_{2.5}$	Annual 24-Hour	15 $\mu g/m^3$ 65 $\mu g/m^3$	12 $\mu g/m^3$ --
Lead	Calendar Quarter 30 Day Average	1.5 $\mu g/m^3$ --	-- 1.5 $\mu g/m^3$
Sulfates	24 Hour	25 $\mu g/m^3$	--
Hydrogen Sulfide	1-Hour	0.03 PPM	--
Vinyl Chloride	24-Hour	0.01 PPM	--

PPM = Parts per Million
$\mu g/m^3$ = Micrograms per Cubic Meter

Source: California Air Resources Board, Ambient Air Quality Standards (7/9/03)
http://www.arb.ca.gov.aqs/aaqs2.pdf

Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage and death.

Ambient Air Quality

Criteria Air Pollutants

The Bay Area Air Quality Management District (BAAQMD) monitors air quality at several locations within the San Francisco Bay Air Basin. The closest multi-pollutant monitoring site to the project site is the San Jose Central monitoring station in downtown San Jose. Table 3 summarizes exceedances of State and Federal standards at this monitoring site during the period 2001-2003. Table 3 shows that ozone and PM_{10} exceed the state standards in the South Bay.

Of the three pollutants known to at times exceed the state and federal standards in the project area, two are regional pollutants. Both ozone and particulate matter (PM_{10} and $PM_{2.5}$) are considered regional pollutants in that concentrations are not determined by proximity to individual sources, but show a relative uniformity over a region. Thus, the data shown in Table 3 for ozone and PM_{10} provide a good characterization of levels of these pollutants on the project site.

Carbon monoxide is a local pollutant, i.e., high concentrations are normally only found very near sources. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes.

Toxic Air Contaminants

The TAC monitoring network operated by the BAAQMD includes gaseous samples collected over 24-hour periods on a 12-day sampling frequency. The network began in 1986 with six sites, and has gradually been expanded to its present size of 20 sites. The analytical protocol includes the following 12 gaseous compounds: benzene, carbon tetrachloride, chloroform, ethylene dibromide, ethylene dichloride, methyl tert butyl ether (MTBE), methylene chloride, perchloroethylene, toluene, trichloroethane, trichloroethylene, and vinyl chloride. Year 2002 data from the San Jose Fourth Street monitoring site are shown in Table 4.

The current inventory of Toxic Air Contaminant emissions maintained by the Bay Area Air Quality Management District lists several sources in the project vicinity. One is the Azevedo Quarry located west of the site on the opposite side of the adjacent railroad tracks. Three facilities that emit TACs are located along Umbarger Road south of the Santa Clara County fairgrounds, and one is located south of the project site on Daylight Way. Ã source located on Goble Lane would be removed by the project. None of the TAC sources near the project are identified as a priority source requiring preparation of a health risk assessment or notification under the Air Toxics "Hot Spots" Information and Assessment Act.[1]

Attainment Status and Regional Air Quality Plans

The federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state

[1] Bay Area Air Quality Management District, Toxic Air Contaminant Control Program Annual Report 2002, June 2004.

Table 3: Summary of Criteria Pollutant Air Quality Data for San Jose Central Site[2]

	Standard	Days Exceeding Standard in:		
		2001	2002	2003
Ozone	Federal 1-Hour	0	0	0
Ozone	State 1-Hour	2	0	4
Ozone	Federal 8-Hour	0	0	0
Carbon Monoxide	State/Federal 8-Hour	0	0	0
Nitrogen Dioxide	State 1-Hour	0	0	0
PM_{10}	Federal 24-Hour	0	0	0
PM_{10}	State 24-Hour	4	0	3
$PM_{2.5}$	Federal 24-Hour	0	0	0

Source: California Air Resources Board, Aerometric Data Analysis and Management System (ADAM), (www.arb.ca.gov/adam/), 2004.

[2] The San Jose 4th Street station was relocated in 2002 as the San Jose Central monitoring site.

Table 4: Summary of 2002 Ambient Air Toxics Monitoring Data for San Jose Fourth Street Site

Compound	LOD (ppb)	% of Samples < LOD	Maximum Conc. (ppb)	Minimum Conc. (ppb)	Mean Conc. (ppb)
Benzene	0.10	0	1.80	0.20	0.77
Chloroform	0.02	40	0.06	<0.02	0.03
Carbon Tetrachloride	0.01	0	0.11	0.10	0.11
Ethylene Dibromide	0.02	100	<0.02	<0.02	<0.02
Ethylene Dichloride	0.10	100	<0.10	<0.10	<0.10
Methyl Tert Butyl Ether	0.50	10	2.40	<0.50	1.13
Methylene Chloride	0.50	90	0.70	<0.50	0.30
Perchloroethylene	0.01	10	0.17	<0.01	0.08
Toluene	0.10	0	4.50	0.30	2.04
1, 1, 1 - Trichloroethane	0.05	0	0.07	0.05	0.06
Trichloroethylene	0.08	100	<0.08	<0.08	<0.08
Vinyl Chloride	0.30	100	<0.30	<0.30	<0.30

LOD = the limit of detection of the analytical method used.
ppb = parts per billion
Source: Bay Area Air Quality Management District, Toxic Air Contaminant Control Program Annual Report 2002, June 2004.

ambient air quality standards are not met as "nonattainment areas". Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation. The Bay is currently a nonattainment for 1-hour ozone standard. However, in April 2004, U.S. EPA made a final finding that the Bay Area has attained the national 1-hour ozone standard. The finding of attainment does not mean the Bay Area has been reclassified as an attainment area for the 1-hour standard. The region must submit a re-designation request to EPA in order to be reclassified as an attainment area.

The California Air Resources Board and U. S. Environmental Protection Agency have both proposed that the San Francisco Bay Area be classified as a nonattainment area for the federal 8-hour standard. The California Air Resources Board and U. S. Environmental Protection Agency have both proposed that the San Francisco Bay Area be considered unclassifiable with respect to the federal $PM_{2.5}$ standards. Unclassifiable means that an area cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. U.S. EPA plans to finalize $PM_{2.5}$ designations by December 15, 2004.

Under the California Clean Air Act Santa Clara County is a nonattainment area for ozone and PM_{10}. The county is either attainment or unclassified for other pollutants. The California Clean Air Act requires local air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or if not, provide for adoption of "all feasible measures on an expeditious schedule".

Sensitive Receptors and Existing Air Pollution Sources

The Bay Area Air Quality Management District defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The Chateau La Salle mobile home park north of the site is a residential use that would be considered to be a sensitive receptor. The project itself would be a sensitive receptor.

The project site is adjacent the existing Raisch Company Pullman Way plant. This facility operates under permits issued by the Bay Area Air Quality Management District. There is currently an asphalt batch plant on this site. The Raisch facility is a source of Reactive Organic Gases (ROG), Carbon Monoxide (CO), Nitrogen Oxides (NOx) and particulate matter. The asphalt batch plant is a potential source of odors created in the heating of asphalt cement. The Raisch facility also generates diesel truck trips that enter and exit the plant via a driveway located adjacent the southern boundary of the project site.

Significance Criteria

Based on City of San Jose standards, an impact to air quality is considered significant if the

project would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold for ozone precursors),
- Expose sensitive receptors to substantial pollutant concentrations, or
- Create objectionable odors affecting a substantial number of people.

Additionally, the document *BAAQMD CEQA Guidelines*[3] provide the following definitions of a significant air quality impact:

- A project contributing to carbon monoxide (CO) concentrations exceeding the State Ambient Air Quality Standard of 9 parts per million (ppm) averaged over 8 hours or 20 ppm for 1 hour would be considered to have a significant impact.
- A project that generates criteria air pollutant emissions in excess of the BAAQMD annual or daily thresholds would be considered to have a significant air quality impact. The current thresholds are 15 tons/year or 80 pounds/day for Reactive Organic Gases (ROG), Nitrogen Oxides (NO_x) or PM_{10}. Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.
- Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.
- Any project with the potential to expose sensitive receptors or the general public to substantial levels of toxic air contaminants would be deemed to have a significant impact.

Despite the establishment of both federal and state standards for $PM_{2.5}$ (particulate matter, 2.5 microns), the BAAQMD has not developed a threshold of significance for this pollutant. For this analysis, $PM_{2.5}$ impacts would be considered significant if project emissions of PM_{10} exceed 80 pounds per day.

The BAAQMD significance threshold for construction dust impact is based on the appropriateness of construction dust controls. The BAAQMD guidelines provide feasible

[3] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, 1996 (Revised Dec. 1999).

control measures for construction emission of PM_{10}. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less-than-significant.

IMPACTS

Construction-Related Impacts

The proposed project would require demolition of existing buildings. The physical demolition of existing structures and other infrastructure are construction activities with a high potential for creating air pollutants. In addition to the dust created during demolition, substantial dust emissions could be created as debris is loaded into trucks for disposal.

After removal of existing structures, construction dust would continue to affect local air quality during construction of the project. Construction activities would generate exhaust emissions from vehicles/equipment and fugitive particulate matter emissions that would affect local air quality. Construction activities are also a source of organic gas emissions. Solvents in adhesives, non-waterbase paints, thinners, some insulating materials and caulking materials would evaporate into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

Construction dust could affect local air quality during implementation of the project. The dry, windy climate of the area during the summer months creates a high potential for dust generation when and if underlying soils are exposed to the atmosphere.

During construction various diesel-powered vehicles and equipment would be in use on the site. In 1998 the California Air Resources Board identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[4] High volume freeways, stationary diesel engines and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truckstop) were identified as having the highest associated risk

Health risks from Toxic Air Contaminants are function of both concentration and duration of exposure. Unlike the above types of sources, construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction related sources are mobile and transient in nature, and the bulk of the emission occurs within the project site at a substantial distance from nearby receptors. Because of its short duration, health risks form construction emissions of diesel particulate would be a less-than-significant impact.

According the *BAAQMD CEQA Guidelines*, emissions of ozone precursors (ROG and NOx) and carbon monoxide related to construction equipment are already included in the emission inventory that is the basis for regional air quality plans, and thus are not expected to impede attainment or maintenance of ozone and carbon monoxide standards in the Bay Area. Thus, the effects of construction activities would be increased dustfall and locally elevated levels of PM_{10} downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. This is considered a potentially

[4] California Air Resources Board, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, October 2000.

significant impact

Permanent Local Impacts

On the local scale, the project would change traffic on the local street network, changing carbon monoxide levels along roadways used by project traffic. Carbon monoxide is an odorless, colorless poisonous gas whose primary source in the Bay Area is automobiles. Concentrations of this gas are highest near intersections of major roads.

Carbon monoxide concentrations under worst-case meteorological conditions have been predicted for several signalized intersections affected by project. PM peak traffic volumes were applied to a screening form of the CALINE-4 dispersion model to predict maximum 1- and 8-hour concentrations near these intersections.[5] The model results were used to predict the maximum 1-and 8-hour concentrations, corresponding to the 1- and 8-hour averaging times specified in the state and federal ambient air quality standards for carbon monoxide.

Table 5 shows the results of the carbon monoxide analysis for the peak 1-hour and 8-hour traffic periods in parts per million (PPM). The 1-hour values are to be compared to the federal 1-hour standard of 35 PPM and the state standard of 20 PPM. The 8-hour values in Table 5 are to be compared to the state and federal standard of 9 PPM.

Table 5 shows that existing predicted concentrations near the intersections meet the 1-hour and 8-hour standards. Concentrations with background traffic increases would be up to 0.3 PPM above existing levels. Traffic from the proposed project would increase concentrations by up to 0.2 PPM, but concentrations would remain below the most stringent state or federal standards. Since project traffic would not cause any new violations of the 8-hour standards for carbon monoxide, nor contribute substantially to an existing or projected violation, project impacts on local carbon monoxide concentrations are considered to be less-than-significant.

Permanent Regional Impacts

Vehicle trips generated by the project would result in air pollutant emissions affecting the entire San Francisco Bay Air Basin. Regional emissions associated with project vehicle use have been calculated using the URBEMIS2002 emission model. The methodology used in estimating vehicular emissions is described in Attachment 2.

The incremental daily emission increase associated with project land uses is identified in Table 6 for Reactive Organic Gases (ROG) and Nitrogen Oxides (NOx) (two precursors of ozone) and PM_{10}. Also shown are calculated emissions associated with existing land uses on the project site that would be removed, and the net change in emissions that would result from construction of the project.

The Bay Area Air Quality Management District has established threshold of significance for

[5] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996 (Revised December 1999)

Table 5: Worst Case Carbon Monoxide Concentrations Near Selected Project Intersections, in PPM

Intersection	Existing (2004)		Background (2004)		Low Density Project (2004)		High Density Project (2004)		Cumulative + Low Dens. Project (2010)		Cumulative +High Dens. Project (2010)	
	1-Hr.	8-Hr.	1-Hr.	8-Hr.	1-Hr.	8-Hr.	1-Hr.	8-Hr.	1-Hr.	8-Hr.	1-Hr.	8-Hr.
SR87 (E)/ Curtner Avenue	8.3	6.3	8.8	6.6	9.0	6.8	9.0	6.8	6.5	5.0	6.6	5.0
SR 87 (W)/ Curtner Avenue	8.0	6.1	8.4	6.4	8.5	6.4	8.6	6.5	6.4	4.9	6.4	4.9
Monterey Road/ Curtner Avenue	8.9	6.7	9.2	6.9	9.5	7.1	9.6	7.2	7.1	5.4	7.1	5.4
Monterey Road/ Capitol Exp. (S)	8.7	6.5	9.2	6.9	9.3	7.0	9.3	7.0	6.8	5.2	6.8	5.2
Monterey Road/ Capitol Exp. (N)	8.6	6.5	9.1	6.8	9.1	6.9	9.1	6.9	6.8	5.2	6.8	5.2
Senter Road/ Tully Road	9.8	7.3	10.3	7.7	10.5	7.8	10.5	7.9	7.5	5.7	7.5	5.7
Most Stringent Standard	20.0	9.0	20.0	9.0	20.0	9.0	20.0	9.0	20.0	9.0	20.0	9.0

Table 6: Project Regional Emissions in Pounds Per Day

	Reactive Organic Gases	Nitrogen Oxides	PM_{10}
Proposed Project (Low Density)	71.9	71.6	59.0
Existing Uses Removed	-5.9	-6.0	-5.0
Net Change	66.0	65.6	54.0
Proposed Project (High Density)	84.7	84.1	69.7
Existing Uses Removed	-5.9	-6.0	-5.0
Net Change	78.8	78.1	64.7
BAAQMD Significance Threshold	80.0	80.0	80.0

ozone precursors and PM_{10} of 80 pounds per day. Proposed project emissions shown in Table 6 would not exceed these thresholds of significance, so the proposed project alone would have a less-than-significant effect on regional air quality.

Indirect Diesel Exhaust Particulate Impacts

The California Air Resources Board has identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). The southern edge of the project site abuts an existing industrial road carrying substantial diesel truck traffic. The existing project site includes a mobile home park, which is a sensitive receptor. It is currently separated from the industrial road by a vacant storage yard that provides a relatively narrow buffer zone between the road and residential uses.

The Bay Area Air Quality Management District's *CEQA Guidelines* note that while they currently do not have a recommended methodology to use in quantifying impacts from diesel exhaust emissions, the District strongly encourages that the issue be considered and potential impacts addressed based on the best information available. Specifically, the CEQA Guidelines note that:

> "*Particularly attention should be paid to projects that might result in sensitive receptors being exposed to high levels of diesel exhaust. This applies both to situations where a new or modified source of emissions is proposed near existing receptors and to new receptors locating near an existing source.*"[6]

The proposed project would result in a greater population being located at a closer distance to the Raisch driveway. This increases the exposure of sensitive receptors to emissions of a toxic air contaminant. This impact is potentially significant.

Indirect Odor Impacts

The existing project site includes a mobile home park, which is a sensitive receptor. It is currently separated from the adjacent Raisch facility by vacant lands along its south and west boundary. The project would place high density residential development adjacent to an existing heavy industrial facility that lawfully emits pollutants and possibly odors. The proposed project would increase population on the site, reduce the distance between the potentially odorous equipment and residences and include multi-story buildings that may be affected by elevated odor plumes. While the prevailing winds would carry odors away from the project, southerly to southeasterly winds that would place the project downwind from the asphalt batch plant can be expected roughly 15% of the time based on wind direction distributions measured at San Jose International Airport.

The project could create a potential land use conflict related to odor. An increase in the potential for odor-related nuisance complaints would occur. This impact would be a potentially significant impact.

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[6] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996 (Revised December 1999)

Cumulative Air Quality Impacts

According the *BAAQMD CEQA Guidelines*, a project that generates criteria air pollutant emissions in excess of the BAAQMD annual or daily thresholds would have a significant air quality impact individually and cumulatively. Proposed project emissions shown in Table 6 would not exceed the BAAQMD thresholds.

The BAAQMD CEQA Guidelines do provide, however, that projects with individually insignificant impacts could have a cumulatively significant impact.[7] If a project requires a General Plan amendment it would have a significant cumulative impact if the project generates more Vehicle Miles Traveled than that anticipated under the previous land use designation. The proposed project does require a General Plan amendment, and the Vehicle Miles Traveled under the proposed designation is substantially higher than under the existing designation. Therefore, the project would have a significant cumulative air quality impact on regional air quality.

[7] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996 (Revised December 1999)

MITIGATION MEASURES

Demolition/Construction

Require implementation of the following dust control measures by contractors during demolition of existing structures:

- Watering should be used to control dust generation during demolition of structures and break-up of pavement.
- Cover all trucks hauling demolition debris from the site.
- Use dust-proof chutes to load debris into trucks whenever feasible.

Require implementation of the following dust control measures by construction contractors during all construction phases:

- Water all active construction areas at least twice daily.
- Watering or covering of stockpiles of debris, soil, sand or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (preferably with water sweepers) all paved access road, parking areas and staging areas at construction sites.
- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

The BAAQMD significance threshold for construction dust impact is based on the appropriateness of construction dust controls.[8] Implementation of the above measures would reduce construction impacts of the project to a less than significant level.

Indirect Diesel Exhaust Impacts

Buffer zones are typically used to reduce land use conflicts between industrial and residential uses. An effective buffer zone would be on the order of 50 feet, which would maintain the minimum distance that exists between the Raisch Driveway and existing residences on the site. Providing such a buffer zone along the eastern boundary of the project site along the Raisch driveway could reduce this impact substantially, but could also

[8] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996 (Revised December 1999)

limit the development potential of the site or require higher density development on the remaining portion of the site. Unless the uses on the site can be reconfigured to provide a 50-foot setback from the boundary with the Raisch driveway, this impact is considered significant and unavoidable.

Indirect Odor Impacts

Buffer zones are typically used to reduce land use conflicts between industrial and residential uses. An effective buffer zone would be on the order of 500 feet, which would maintain the minimum distance between the asphalt batch plant and the closest residence on the existing site. The batch plant is about 100 feet from the project site. Providing such a buffer zone along the southern boundary of the project site with the Raisch facility could reduce this impact substantially, but would also severely limit the development potential of the site. Unless the uses on the site can be reconfigured to provide the required setback from the boundary with the Raisch property, this impact is would remain potentially significant.

Cumulative Air Quality Impacts

The project has two design features that would reduce air quality impacts. The site has convenient transit access with Santa Clara VTA bus service along Monterey Road. The project is also a mixed residential/commercial proposal, which allows for non-auto trips between residential and commercial uses.

The Bay Area Air Quality Management District CEQA Guidelines identify the following additional measures that could be applied to the proposed project:

- Provide transit facilities, e.g., bus bulbs/turnouts, benches, shelters, etc.
- Provide shuttle service to regional transit system to multimodal center.
- Provide shuttle service to major destinations such as employment centers, shopping centers, schools.
- Provide bicycle lanes and/or paths connected to community-wide network.

The above measures would further reduce project air quality impacts by a few percent. Project cumulative impacts on regional air quality would remain significant.

ATTACHMENT 1: CALINE-4 MODELING

The CALINE-4 model is a fourth-generation line source air quality model that is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway. Given source strength, meteorology, site geometry and site characteristics, the model predicts pollutant concentrations for receptors located within 150 meters of the roadway. The CALINE-4 model allows roadways to be broken into multiple links that can vary in traffic volume, emission rates, height, width, etc.

A screening-level form of the CALINE-4 program was used to predict concentrations.[9] Normalized concentrations for each roadway size (2 lanes, 4 lanes, etc.) are adjusted for the two-way traffic volume and emission factor. Calculations were made for a receptor at a corner of the intersection, located 25 feet from the curb. Emission factors were derived from the California Air Resources Board EMFAC2002 computer program based on a 2004 Bay Area vehicle mix.

The screening form of the CALINE-4 model calculates the local contribution of nearby roads to the total concentration. The other contribution is the background level attributed to more distant traffic. The 1-hour background level in 2004 was taken as 4.9 PPM and the 8-hour background concentration was taken as 3.9 PPM. The 1-hour background level in 2010 was taken as 4.4 PPM and the 8-hour background concentration was taken as 3.5 PPM. These backgrounds were estimated using isopleth maps and correction factors developed by the Bay Area Air Quality Management District.

Eight-hour concentrations were obtained from the 1-hour output of the CALINE-4 model using a persistence factor of 0.7.

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[9] Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, 1999.

ATTACHMENT 2: NEW VEHICLE TRAVEL EMISSIONS

Estimates of regional emissions generated by project traffic were made using a program called URBEMIS-2002.[10] URBEMIS-2002 is a program that estimates the emissions that result from various land use development projects. Land use projects can include residential uses such as single-family dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial parks. URBEMIS-2002 contains default values for much of the information needed to calculate emissions. However, project-specific, user-supplied information can also be used when it is available.

Inputs to the URBEMIS-2002 program include trip generation rates, vehicle mix, average trip length by trip type and average speed. Trip generation rates for project land uses were provided by the project transportation consultant. Average trip lengths and vehicle mixes for the Bay Area were used. Average speed for all types of trips was assumed to be 30 MPH.

The URBEMIS-2002 run assumed summertime conditions with an ambient temperature of 85 degrees F.

The analysis was carried out assuming project build-out would occur by the year 2005. The URBEMIS-2002 output is attached.

[10] Jones and Stokes Associates, Software User's Guide: URBEMIS2002 for Windows with Enhanced Construction Module, Version 7.4, May 2003.

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\goblelanelow.urb
Project Name: Goble Lane Low Density
Project Location: San Francisco Bay Area
on-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	71.91	71.59	764.53	0.66	59.04
TOTALS (lbs/day, mitigated)	71.91	71.59	764.53	0.66	59.04

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program. Files\URBEMIS 2002 For windows\Projects2k2\GoblelaneHigh.urb
Project Name: Goble Lane
Project Location: San Francisco Bay Area
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL(VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	84.67	84.12	899.67	0.78	69.70
TOTALS (lbs/day, mitigated)	84.67	84.12	899.67	0.78	69.70

URBEMIS 2002 For Windows 7.5.0

File Name: <Not Saved>
Project Name: Goble Lane Removed Uses
Project Location: San Francisco Bay Area
on-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day,unmitigated)	5.92	6.00	64.19	0.06	4.99
TOTALS (lbs/day, mitigated)	5.92	6.00	64.19	0.06	4.99

Appendix E

ILLINGWORTH & RODKIN, INC.
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March 10, 2005

Shannon George
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126

SUBJECT: Goble Lane Residential Project – Air Quality Impacts From Diesel Trucks Accessing Cement Plant

Dear Shannon:

We performed air dispersion modeling to evaluate the potential air pathway health risk to new residences at the Goble Lane project from heavy-duty diesel trucks accessing the adjacent cement plant. The project would locate new sensitive receptors adjacent to an existing source of diesel particulate matter emissions, exposing them to elevated levels of toxic air contaminants. This would be a less-than-significant impact. Our assessment is provided below.

An existing cement plant is located directly south of the proposed project development, with access to the cement plant via a roadway that is adjacent to the southern fence line of the project site. It is estimated that there are 100 trucks traveling to and from the cement plant along this roadway on a daily basis. Diesel particulate matter emitted from these trucks is a known carcinogen that can pose a potential health risk to new residents of the proposed project. Potential health risks to residents of the proposed project from diesel particulate matter (DPM) emitted from the diesel trucks associated with the cement plant operations were evaluated using methods that followed the Bay Area Air Quality Management District (BAAQMD) air toxic risk evaluation procedures.

Project plans include construction of new residential housing units, with some of the housing units in the southern portion of the project being between 80 feet to 200 feet from the existing access road used by trucks at the cement plant. Due to the proximity of the cement plant access road to the proposed project, emissions from large diesel-fueled trucks (assumed to be heavy-duty diesel trucks) were modeled to estimate a range of diesel particulate matter concentrations expected to be encountered at the proposed nearby housing units. These concentrations were then used to estimate projected individual excess lifetime cancer risks from exposure to diesel particulate matter.

The EPA's CAL3QHCR model was used to calculate annual average diesel particulate matter concentrations at distances of about 80 feet and 180 feet from the cement plant's access road. These distances are representative of the closest distances that the proposed new housing units would be from the access road. The CAL3QHCR model is an enhanced but separate version of the CAL3QHC model that allows for the incorporation of actual hourly meteorological data into the modeling rather than using worst-case assumptions regarding short-term meteorological conditions as is done when using CAL3QHC model. These models are designed to simulate the dispersion of emissions from motor vehicles on roadways and intersections. The CAL3QHCR processes hourly meteorological data along with traffic data (roadway geometry, traffic volumes, and vehicle emission rates) to calculate short-term and annual average concentrations, which are needed for estimating long-term exposures and resulting cancer risks.

For this analysis, five years of hourly meteorological data were used in the modeling analysis to compute the long-term (5-year average) diesel particulate matter concentrations at the proposed nearby housing units. The meteorological data were collected at the San Jose Airport during the years 1992, 1993, 1994, 1995, and 1997 and were obtained from the BAAQMD. The data for 1996 were not used since the BAAQMD does not feel the data are adequate for modeling.

Diesel particulate matter emissions from heavy-duty diesel trucks were computed with the CARB's Emfac2002 Emission Factor Model using the diesel truck fleet mix for Santa Clara County. DPM emission rates in grams per mile (g/mi) were computed for heavy-duty diesel trucks traveling at 5 mph for the year 2007, as well as several future years (2010, 2015, and 2025). While this analysis estimated potential long-term cancer risks based solely on exposure to diesel exhaust at 2007 emission levels, it is useful to see how diesel particulate matter emission rates from heavy-duty trucks are projected to decrease in the future and what effects this has on the projected health risks.

Table 1: Diesel Particulate Matter Emission Factors for Heavy-Duty Diesel Trucks

Year	Diesel Particulate Matter Emission Factor (g/mi)
2007	0.75
2010	0.57
2015	0.37
2025	0.21

As can be seen from Table 1, diesel particulate matter emission rates are expected to significantly decrease in future years. These decreases are due to current regulatory requirements for reduced emissions from diesel vehicles and decreased sulfur content in diesel

fuel. By 2010, diesel particulate emissions from heavy-duty trucks will be reduced by about one-half from those in 2007, resulting in associated decreases in cancer risks for future years.

Results of the risk evaluation, based on air dispersion modeling of diesel particulate matter, are given in Table 2. Shown in the table, for each of the five years modeled, are the maximum modeled concentrations at distances of 80 feet and 180 feet from the cement plant access road, along with the long-term (5-year) average concentration in micrograms per cubic meter ($\mu g/m^3$) and associated estimated cancer risk due to a 70-year exposure. The highest diesel particulate matter concentrations would occur at the proposed residences closest to the cement plant access road (about 80 feet away), with a maximum long-term concentration of 0.028 $\mu g/m^3$, then decrease to a maximum concentration of 0.015 $\mu g/m^3$ at a distance of 180 feet from the cement plant access road.

The maximum individual cancer risks were computed using the BAAQMD recommended cancer risk factor of 3×10^{-4} cancer cases per $\mu g/m^3$ of diesel particulate matter, which are based on "best estimates" of plausible cancer potencies as determined by the California Office Of Environmental Health Hazard Assessment. Assuming a 70-year lifetime exposure at 2007 concentration levels, the maximum incremental risk would be 8.3 excess cancer cases per million people at the proposed residences closest to the cement plant access road and a maximum of 4.5 excess cancer cases at residences 180 feet away from the access road. Diesel particulate matter concentrations, and associated cancer risks, decrease at distances further away from the cement plant access road.

Table 2: Maximum Modeled Diesel Particulate Matter Concentrations ($\mu g/m^3$) and Estimated Cancer Risks From Cement Plant Truck Traffic

Meteorological Data Year	DPM Concentrations ($\mu g/m^3$) at Specified Distance From Cement Plant Access Road	
	80 Feet	180 Feet
1992	0.026	0.014
1993	0.030	0.016
1994	0.029	0.016
1995	0.028	0.015
1997	0.026	0.014
Average Concentration ($\mu g/m^3$)	**0.028**	**0.015**
Max. Cancer Risk (per million)[a]	***8.3***	***4.5***

a Cancer risk calculated assuming constant 70-year exposure to concentrations at 2007 levels.

Under the BAAQMD CEQA Guidelines, incremental cancer risks of 10 cases per million or greater at the location of Maximally Exposed Individual or MEI (in this case the proposed residences adjacent to the cement plant) would be considered a significant impact. Since the potential increases in health risk at the proposed nearby residences are less than 10 cases per million, this would be a less than significant impact.

* * *

This concludes our assessment of air quality impacts to new residences from diesel trucks accessing the cement plant. If you have any questions, please feel free to contact us.

Sincerely,

James A. Reyff
Project Scientist
Illingworth & Rodkin, Inc.

04-159

Appendix F

GOBLE LANE MIXED-USE PROJECT EIR ENVIRONMENTAL NOISE ASSESSMENT SAN JOSE, CALIFORNIA

December 9, 2004

◆ ◆ ◆

Prepared for:

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Job No.: 04-159

INTRODUCTION

This report presents the results of the environmental noise and vibration assessment conducted for the Goble Lane Mixed-Use Project EIR. The proposed project would include single- and multi-family housing and retail on a site currently occupied by a mobile home park and light industrial activities. The major issues evaluated in the noise assessment include the compatibility of the proposed residential development with the noise and vibration environment at the project site and the potential for long-term or short-term noise impacts to occur at existing sensitive development near the site as a result of construction noise and increased traffic noise. The Setting Section of the report presents a discussion of the fundamentals of environmental acoustics and groundborne vibration, regulatory background information, and a discussion of the existing noise and vibration environment in and around the project site. The Impacts and Mitigation Measures Section describes the significance criteria used in the impact assessment and evaluates project impacts with regard to noise and land use compatibility, groundborne vibration, project generated traffic, and project construction. Mitigation measures are presented to reduce potentially significant noise impacts to a less than significant level.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. *A decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level or dBA.* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-

equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level, CNEL,* is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level, Ldn,* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Fundamentals of Groundborne Vibration

Railroad operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} in./sec. RMS, which equals 0 VdB, and 1 in./sec. equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 3 illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

One of the problems with developing suitable criteria for groundborne vibration is the limited research into human response to vibration and more importantly human annoyance inside buildings. However, experience with rapid transit systems over the last few decades has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are primarily based on experience with passenger train operations, such as rapid transit and commuter rail systems. The main difference between passenger and freight operations is the time duration of individual events; a passenger train lasts few seconds whereas a long freight train may last several minutes, depending on speed and length. Although these criteria are based on shorter duration events reflected by passenger trains, they are also used in this assessment to evaluate the potential of vibration annoyance on the site due to large freight trains.

TABLE 1 - Definitions of Acoustical Terms Used in this Report

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period. The hourly Leq used for this report is denoted as dBA L_{eq}.
Lmax RMS Level	The maximum root-mean-square (RMS) sound pressure level during a measurement – measured using the "fast" exponential time constant.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day-Night Average Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

TABLE 2 - Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
	0 dBA	Threshold of human hearing

TABLE 3 – Typical Levels of Groundborne Vibration

Human/Structural Response	Velocity Level, VdB (re 1μinch/sec, RMS)	Typical Events (50 –foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
		Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	
		Commuter rail, upper range
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, frequent events		Commuter rail, typical Bus or truck over bump or on rough roads
	70	Rapid transit, typical
Approximate human threshold of perception to vibration		Buses, trucks and heavy street traffic
	60	
		Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	

Source: Illingworth & Rodkin, Inc. and U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, April 1995, DOT-T-95-16

Regulatory Background - Noise

The State of California and the City of San Jose establish guidelines, regulations, and policies designed to limit noise exposure at noise sensitive land uses. Appendix G of the State CEQA Guidelines, the State of California Building Code, and the City of San Jose's Noise Element of the General Plan present the following applicable criteria:

State CEQA Guidelines. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects resulting from a proposed project. Appendix G of the State CEQA guidelines asks if the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

CEQA does not define what noise level increase would be considered substantial. Typically, project-generated noise level increases of 3 DNL or greater would be considered significant where exterior noise levels would exceed the normally acceptable noise level standard (60 DNL). Where noise levels would remain below the normally acceptable noise level standard with the project, noise level increases of 5 DNL or greater would be considered significant.

Section 1208 of the 1998 California Building Code. New multi-family housing in the State of California is subject to the environmental noise limits set forth in Appendix Chapter 1208A.8.4 of the California Building Code. The noise limit is a maximum interior noise level of 45 L_{dn} (same as DNL). Where exterior noise levels exceed 60 L_{dn}, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

City of San Jose General Plan. The Noise Element of the City of San Jose's 2020 Plan identifies noise and land use compatibility standards for various land uses. The City's goal is to, "...minimize the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies."

Residential land uses are considered "satisfactory" up to 60 DNL as the short-range exterior noise quality level, and 55 DNL as the long-range exterior noise quality level. The guidelines state that where the exterior DNL is above the "satisfactory" limit (between 60 and 70 DNL), and the project requires a full EIR, an acoustical analysis should be made indicating the amount of attenuation necessary to maintain an indoor level of a DNL less than or equal to 45 dBA (consistent with the State Building Code). Noise levels exceeding 70 DNL require that new development would only be permitted if uses are entirely indoors and building design limits interior levels to less than or equal to 45 DNL. Outside activity areas should be permitted if site planning and noise barriers result in levels of 60 DNL or less.

Policy 1. The City's acceptable noise level objectives are 55 dBA DNL as the long-range exterior noise quality level, 60 dBA DNL as the short-range exterior noise quality level, 45 dBA DNL as the interior noise quality level, and 76 dBA DNL as the maximum exterior noise level necessary to avoid significant adverse health effects. These objectives are established for the City, recognizing that the attainment of exterior noise quality levels in the environs of the San Jose International Airport, the Downtown Core Area, and along major roadways may not be achieved in the time frame of this Plan. To achieve the noise objectives, the City should require appropriate site and building design, building construction and noise attenuation techniques in new residential development.

Policy 9. Construction operations should use available noise suppression devices and techniques.

Policy 11. When located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses, non-residential land uses should mitigate noise generation to meet the 55 DNL guideline at the property line.

Regulatory Criteria – Vibration

The City of San Jose has not identified quantifiable vibration limits that can be used to evaluate the compatibility of land uses with the expected vibration environment. Although there are no local standards which control the allowable vibration in a new residential development, the U.S. Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with rapid transit projects.[1] Vibration impact criteria, based on maximum overall levels for a single event, have been proposed by the Federal Transit Administration (FTA). The criteria for groundborne vibration impact are shown in Table 4. Note that there are criteria for frequent events (more than 70 events per day) and infrequent events (less than 70 events per day).

[1]U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, April 1995, DOT-T-95-16.

TABLE 4 – Groundborne Vibration Impact Criteria

Land Use Category	**Groundborne Vibration Impact Limits** (VdB re 1 μinch/sec, RMS)	
	Frequent Events[1]	Infrequent Events[2]
Category 1 Buildings where low ambient is essential for interior operations	65 VdB[3]	65 VdB[3]
Category 2 Residences and buildings where people normally sleep	72 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use	75 VdB	83 VdB

Notes:

1. "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
2. "Infrequent Events" is defined as fewer than 70 vibration events per day. This category includes most commuter rail systems.
3. This limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration limits. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

Existing Conditions – Noise

The project site is located southwest of the Monterey Road/Goble Lane intersection in the City of San Jose. Land uses in the vicinity of the project site include a mobile home park to the north, and the Raisch Company Materials Processing facility to the south. Monterey Road forms the project site's easternmost boundary, and the Union Pacific Railroad bounds the site to the west. Noise sources affecting the site include vehicular traffic on Monterey Road, freight and passenger trains on the rail line, aircraft overflights, and noise emanating from the rock crushing and asphalt batch plant operations at the Raisch facility.

The project site and neighboring uses have been studied by Illingworth & Rodkin, Inc. several times over the last few years. The most recent field survey was conducted from October 27, 2004 to October 29, 2004 to quantify the existing noise environment. This survey included three long-term noise measurements and a series of vibration measurements during train passby events. Noise and vibration measurement locations are shown on Figure 1. Previous surveys of the site were conducted in 2000 for the *Raisch Asphalt Plant and Concrete /Asphalt Recycling Facility Initial Study* (May 2000) and the *Monterey Road General Plan Amendment EIR* (June 2002). Data collected at the site and in surrounding areas is discussed by the noise source below.

Monterey Road. Monterey Road is a six-lane arterial roadway that borders the project site to the east. Noise generated by Monterey Road was quantified from October 27, 2004 to October 29, 2004. Noise levels were measured at a distance of 75 feet from the centerline of Monterey Road (LT-1). At this distance, traffic along Monterey Road generated a DNL noise level of 76 dBA. Hourly average noise levels during daytime hours typically ranged from about 71 dBA to 77 dBA L_{eq} as shown in Figure 2. Nighttime hourly average noise typically ranged from 62 dBA to 73 dBA. Noise measurements conducted in 2002 at a similar location also resulted in a traffic noise level of 76 DNL.

Union Pacific Railroad. The project site is bordered by a railroad line to the west. Freight and passenger trains often use the two sets of railroad tracks nearest the site for through traffic. The third track is used primarily for storage. Noise generated by the railroad was monitored at a distance of 40 feet from the center of the near track near the site's westernmost property line from October 27, 2004 to October 29, 2004 (LT-2). The noise data collected at Site LT-2 is summarized on Figure 3. During the monitoring period, 19 to 23 trains passed the site per day. Included in the train count were eight scheduled Caltrain passbys; four northbound trains during the morning commute period and four southbound trains during the evening commute period. Warning whistles would likely be intermittent. Day-night average noise levels ranged from about 68 to 72 dBA. The variation in the DNL noise levels over the two-day period was primarily the result of number of loud events that occurred during early morning or nighttime hours (10:00 p.m. to 7:00 a.m.). Maximum noise levels generated by trains typically ranged from about 85 to 90 dBA. During the monitoring period, there were some instances where maximum noise levels exceeded 100 dBA (10:00 a.m. – 11:00 a.m., October 28, 2004) indicating the possible sounding of a train warning whistle near the sound level meter. Based on the noise data and observations of train passages, warning whistles are not typically sounded adjacent to

the project site. Noise measurements conducted in 2002 indicated a similar range of DNL noise levels depending on train activity.

Aircraft Overflights. Jet aircraft on approach to Mineta San Jose International Airport also contribute to the noise environment throughout the project site and surrounding areas. The project site is located outside of the 65 CNEL contour established for 2010 Master Plan Conditions for areas in the vicinity of Mineta San Jose International Airport. During non-curfew hours, however, aircraft typically fly directly over the site in about four to five minute intervals, generating maximum noise levels of approximately 70 to 75 dBA. The DNL noise level resulting from aircraft is approximately 60 dBA.

Raisch Company Materials Processing Facility. Noise generated by the Raisch Company Materials Processing Facility was monitored from October 27, 2004 to October 29, 2004 at a distance of 100 feet from the southernmost property line of the project site near the asphalt batch plant (LT-3). Based on the measured noise data, it is apparent that activities at the asphalt batch plant begin at about 7:00 a.m. Hourly noise levels with the operation of the batch plant were approximately 70 dBA. During non-operational, nighttime hours, average noise levels were typically 60 dBA. The day-night average noise level at this location was 69 dBA. The noise data collected at this site is summarized on Figure 4.

The site was the subject of extensive noise evaluation in 2000 as part of the environmental assessment for the Raisch Company's Master Plan. The study included measurements of plant noise generation along the southern boundary of the Redwood Mobile Home Park and projections of the noise associated with the implementation of the Raisch Company's plans for a modernized asphalt batch plant. The overall L_{dn} at a distance of 440 feet from the asphalt batch plant was measured to be 63 dBA. Activity at the Raisch site, including the gravel crushing plant and existing asphalt batch plant, contributed a DNL of 59 dB. The major noise source at this location was noise generated by aircraft overflights to and from Mineta San Jose International Airport. Truck traffic to and from the Raisch facility via an access road along the southern boundary of the subject site resulted in maximum noise levels of 61-71 dBA at the noise monitor.

Existing Conditions – Vibration

The site is shown in Figure 1 with railroad lines bordering the site to the west. Vibration measurements were scheduled for the afternoon of Friday, October 29, 2004 based on a review of the Caltrain schedule. The instrumentation used to conduct the measurements included a Sony Digital Audio Tape (DAT) recorder and seismic grade, low noise accelerometers firmly fixed to the ground. This system is capable of measuring accurately very low vibration levels. Vibration levels measured on the site were representative of vibration levels at ground level, i.e. vibration levels that would enter the building foundation.

Ground-borne vibration measurements were made at distances of 50 feet (V-1) and 100 feet (V-2) from the centerline of the near railroad track. The use of two different setbacks was important in developing a drop-off rate for ground vibration with distance. Vibration levels were only

measured in the vertical axis because ground vibration is typically most dominant on the vertical axis and such data is adequate in characterizing the exposure of the site to vibration from railroad trains.

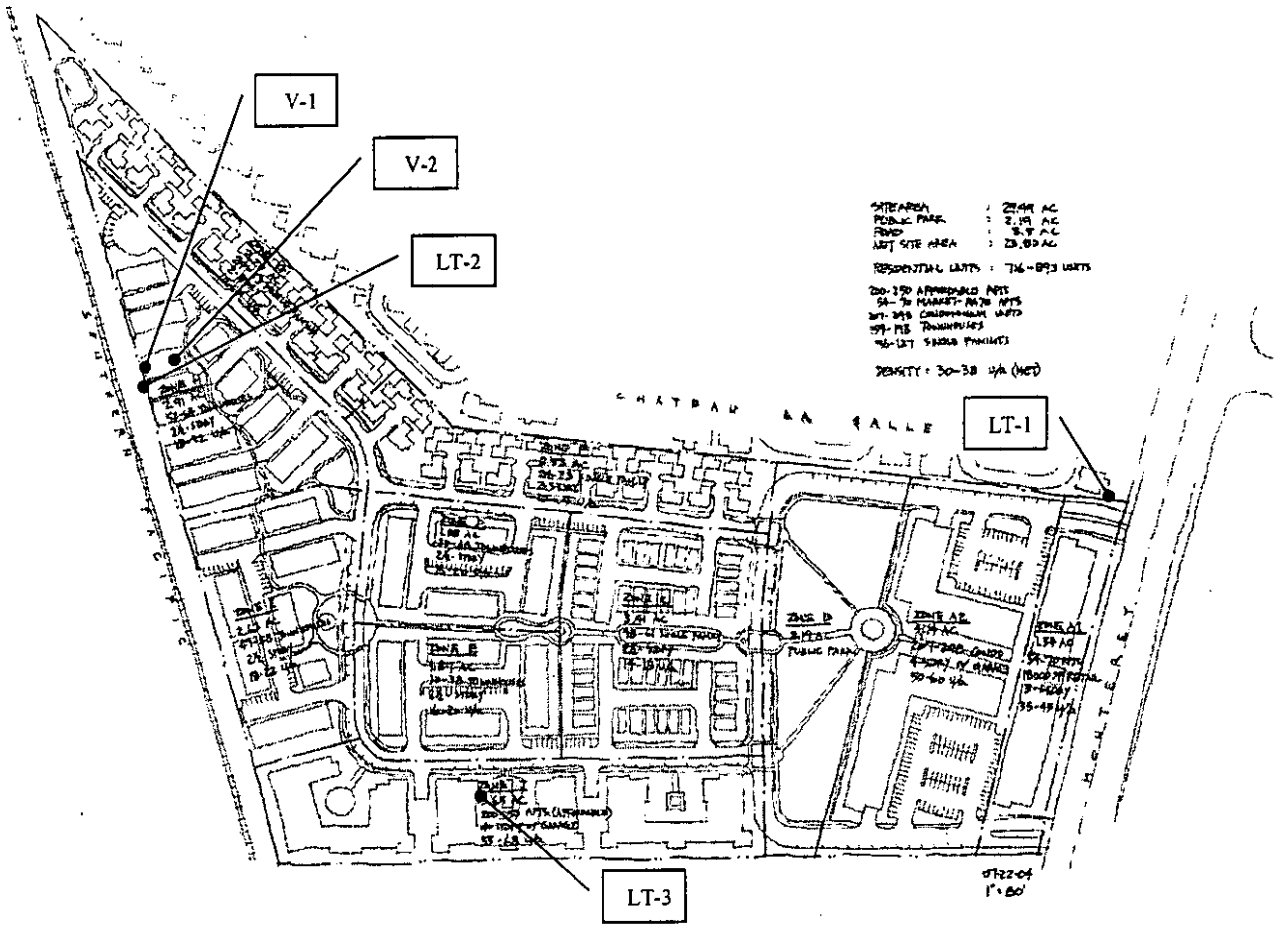
Three southbound Caltrain passenger trains were measured during the evening commute hours. Trains passed the site at a relatively low rate of speed (less than 30 mph), minimizing somewhat the vibration transmitted through the ground. Vibration levels during a train passby exceeded 80 VdB at a distance of 50 feet from the track and were below 80 VdB at a distance of 100 feet from the track. This maximum level occurred when the engine passed the vibration monitoring location. Maximum vibration levels measured at each measurement site during the three passby events are summarized in Table 5.

TABLE 5 – Results of Vibration Measurements

Train Event	Vibration Level (VdB re 1μinch/sec, RMS)		Comment
	50 feet	100 feet	
Southbound Caltrain (16:55)	81 VdB	75 VdB	Estimated speed of 25 mph
Southbound Caltrain (18:03)	79 VdB	72 VdB	Estimated speed of 25 mph
Southbound Caltrain (18:25)	80 VdB	73 VdB	Estimated speed of 25 mph

Figure 5 depicts the trend in vibration levels during a typical train passby. This chart depicts the sum of the vibration levels in each octave-band over time. Note that at 18:25:54, vibration levels were at a maximum and exceeded 80 VdB at a distance of 50 feet from the center of the near track. This time corresponded to the passing of the train engine. Vibration levels at a distance of 100 feet from the tracks were less than 73 VdB. Figure 6 shows typical spectra of train vibration at distances of 50 feet and 100 feet from the center of the near track. The maximum vibration level is typically reached at about 20 Hz.

Figure 1 – Noise and Vibration Monitoring Locations



Noise Levels at LT-1
~ 75 feet from the Centerline of Monterey Road
October 27 - 29, 2004

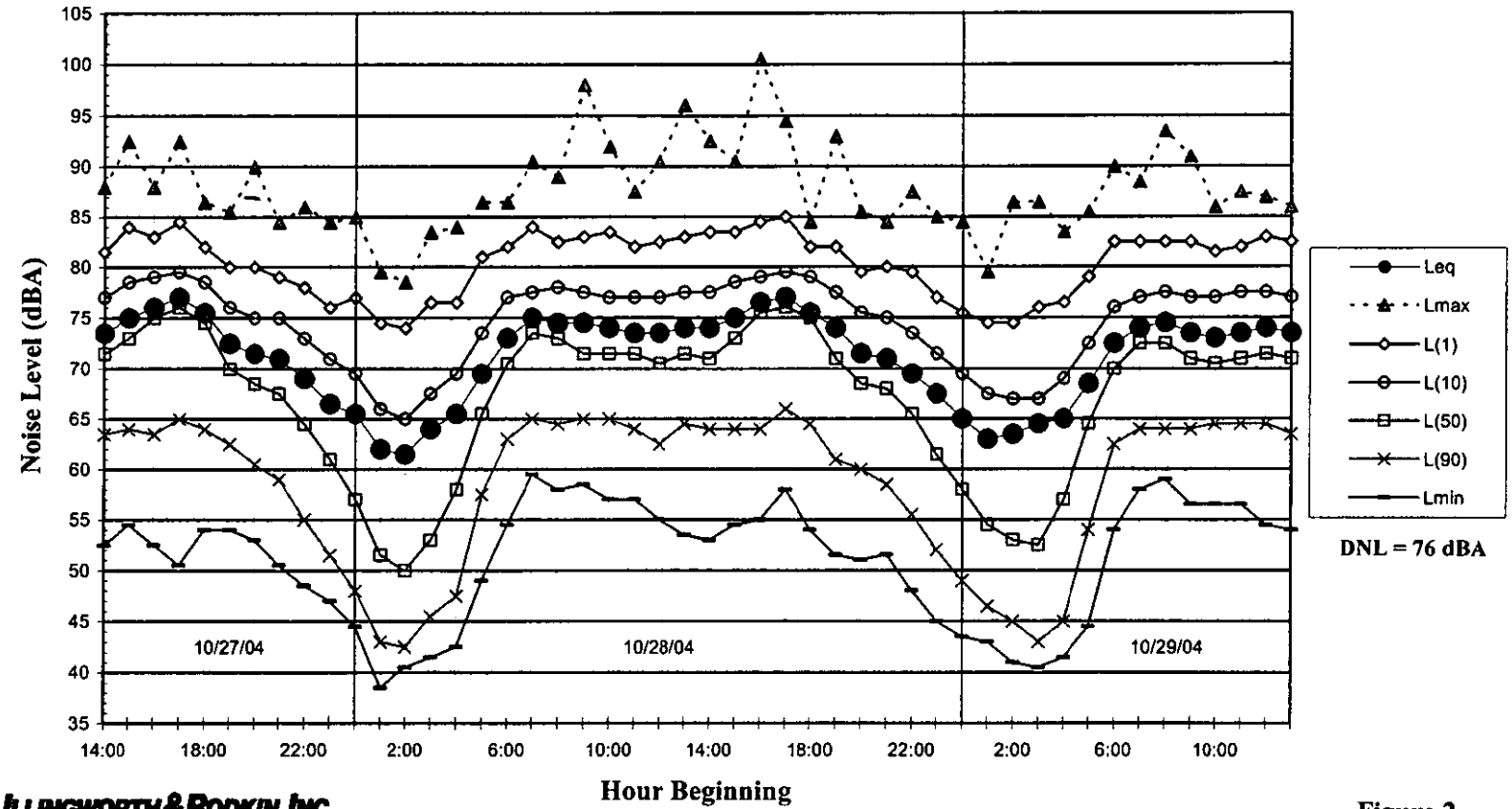


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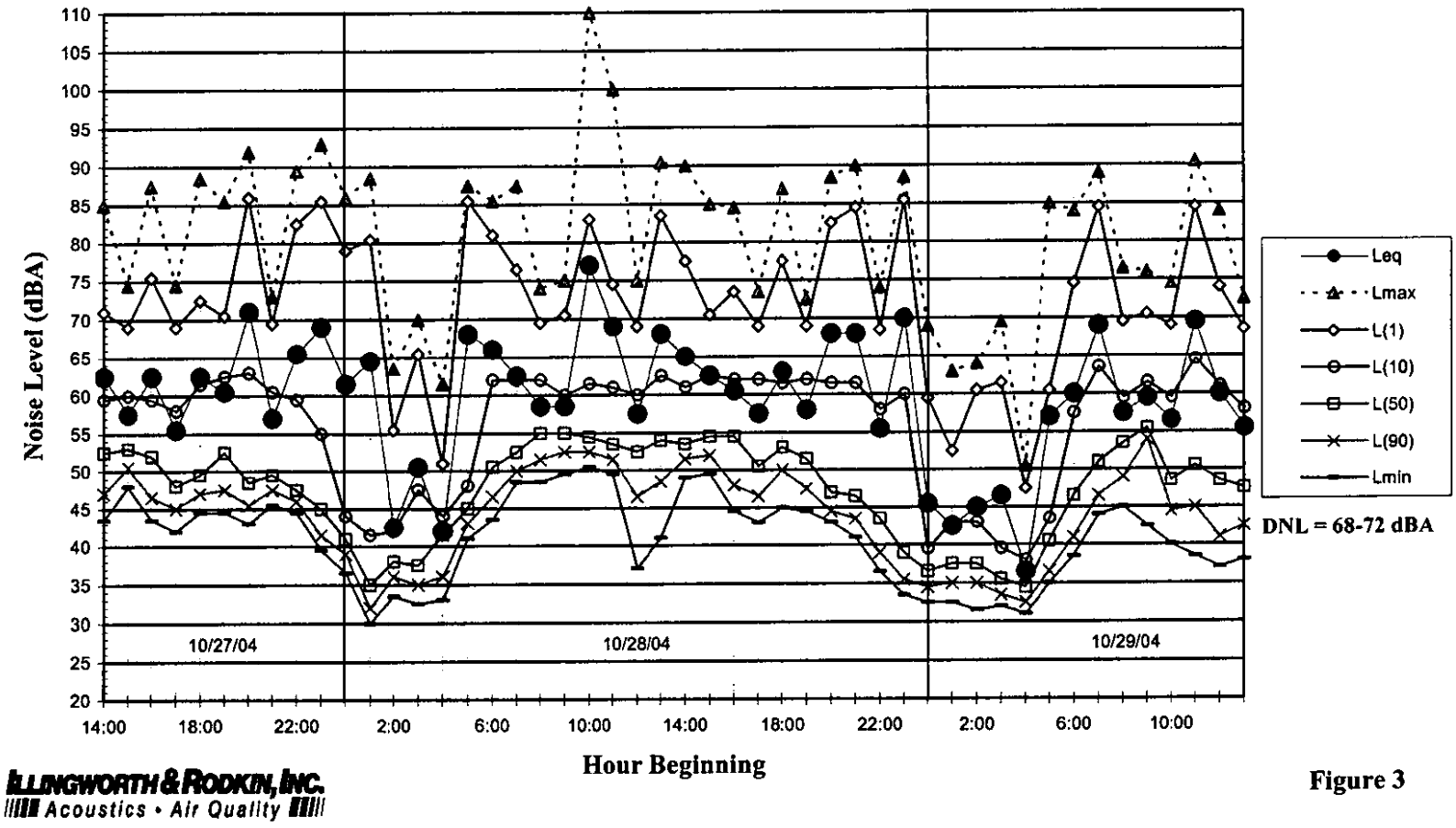
Figure 2

Noise Levels at LT-2
~ 40 feet from the Center of the Near UPRR Track
Westernmost Property Line of Project Site
October 27 - 29, 2004



DNL = 68-72 dBA

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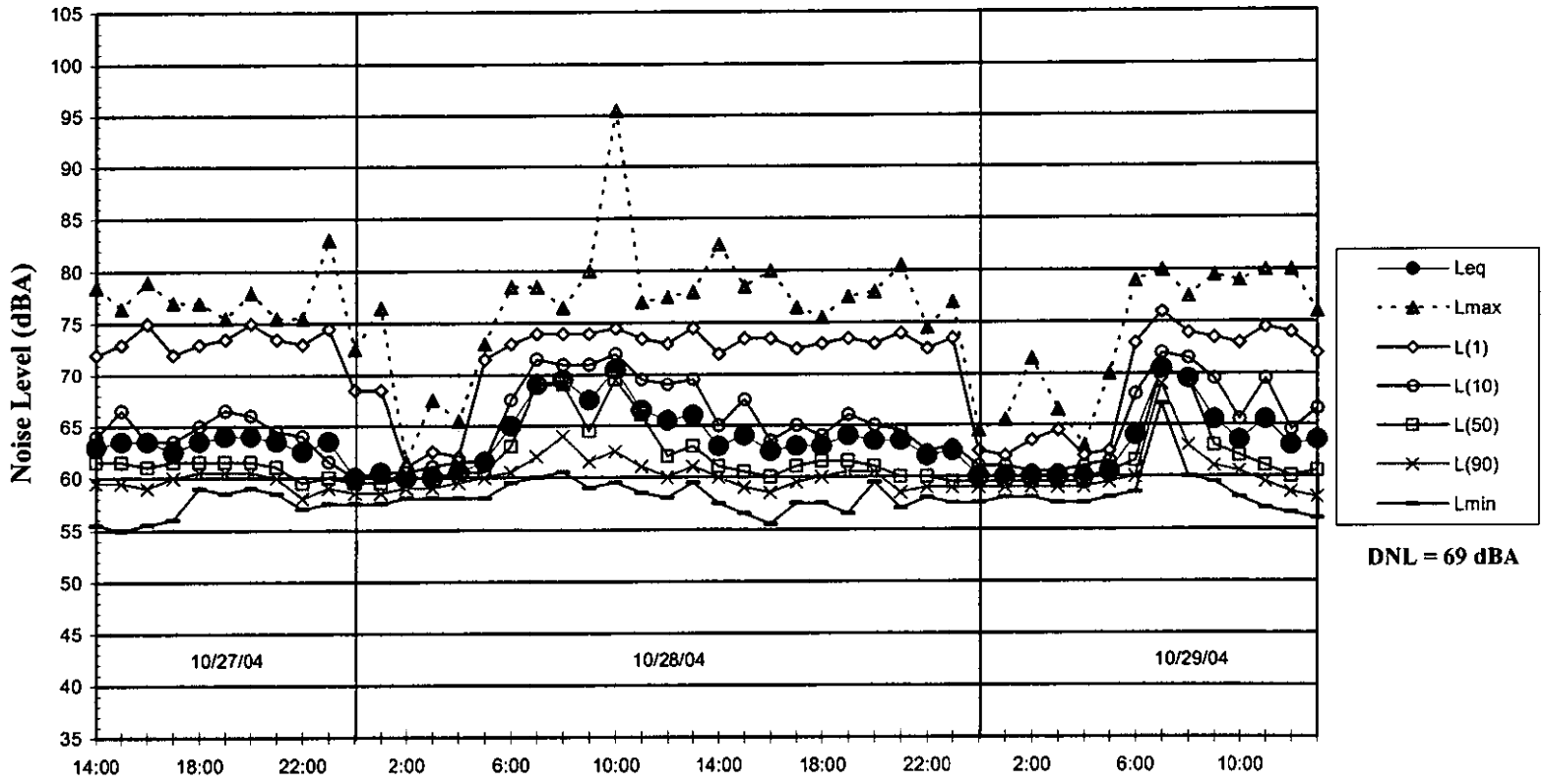
Figure 3

Noise Levels at LT-3
~ 100 feet from the Southernmost Property Line
Adjacent to Asphalt Batch Plant
October 27 - 29, 2004



DNL = 69 dBA

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Figure 4

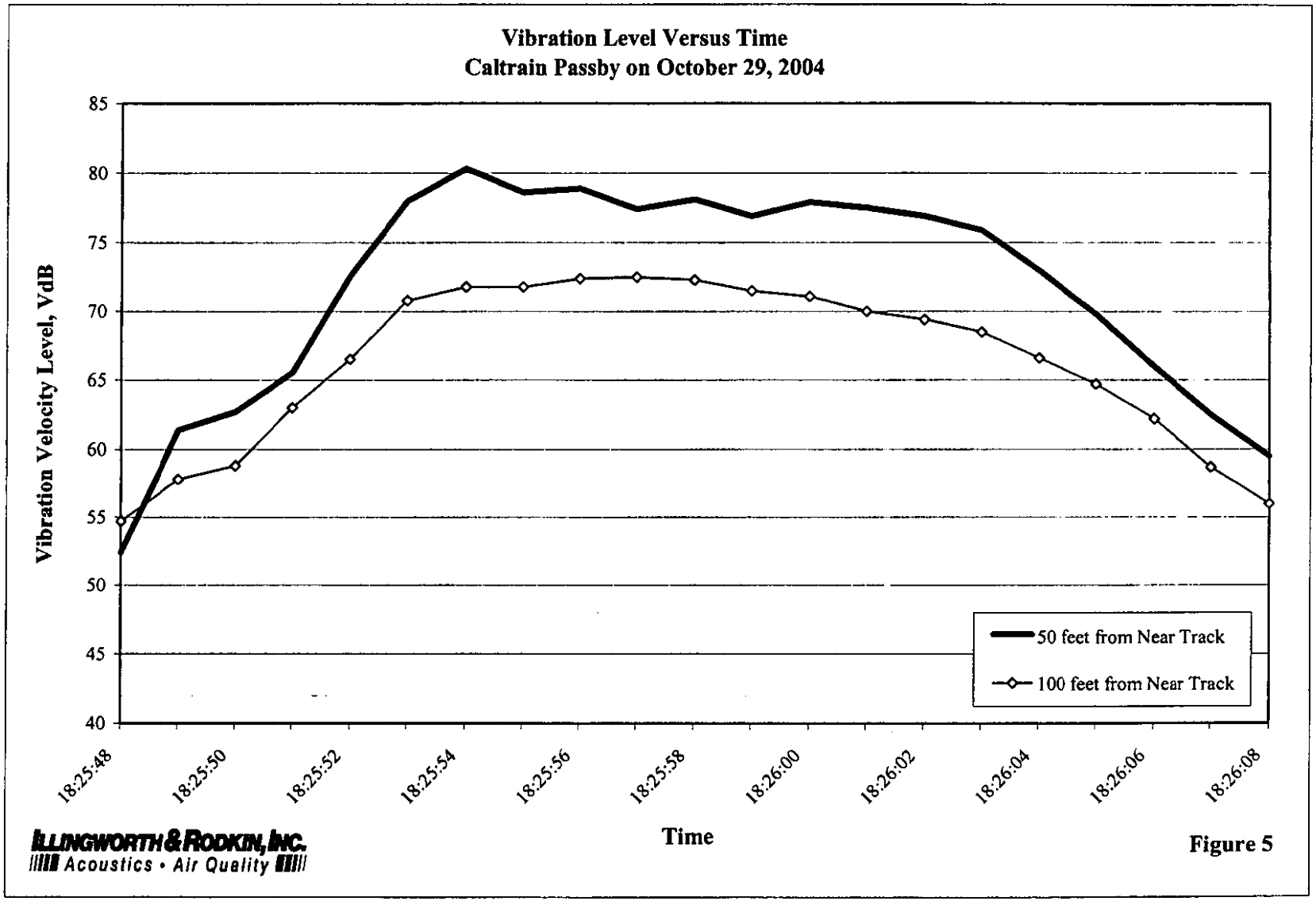
Vibration Level Versus Time
Caltrain Passby on October 29, 2004
Vibration Velocity Level, VdB
85
80
75
70
65
60
55
50
45
40
18:25:48
18:25:50
18:25:52
18:25:54
18:25:56
18:25:58
18:26:00
18:26:02
18:26:04
18:26:06
18:26:08
Time
50 feet from Near Track
100 feet from Near Track
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Figure 5

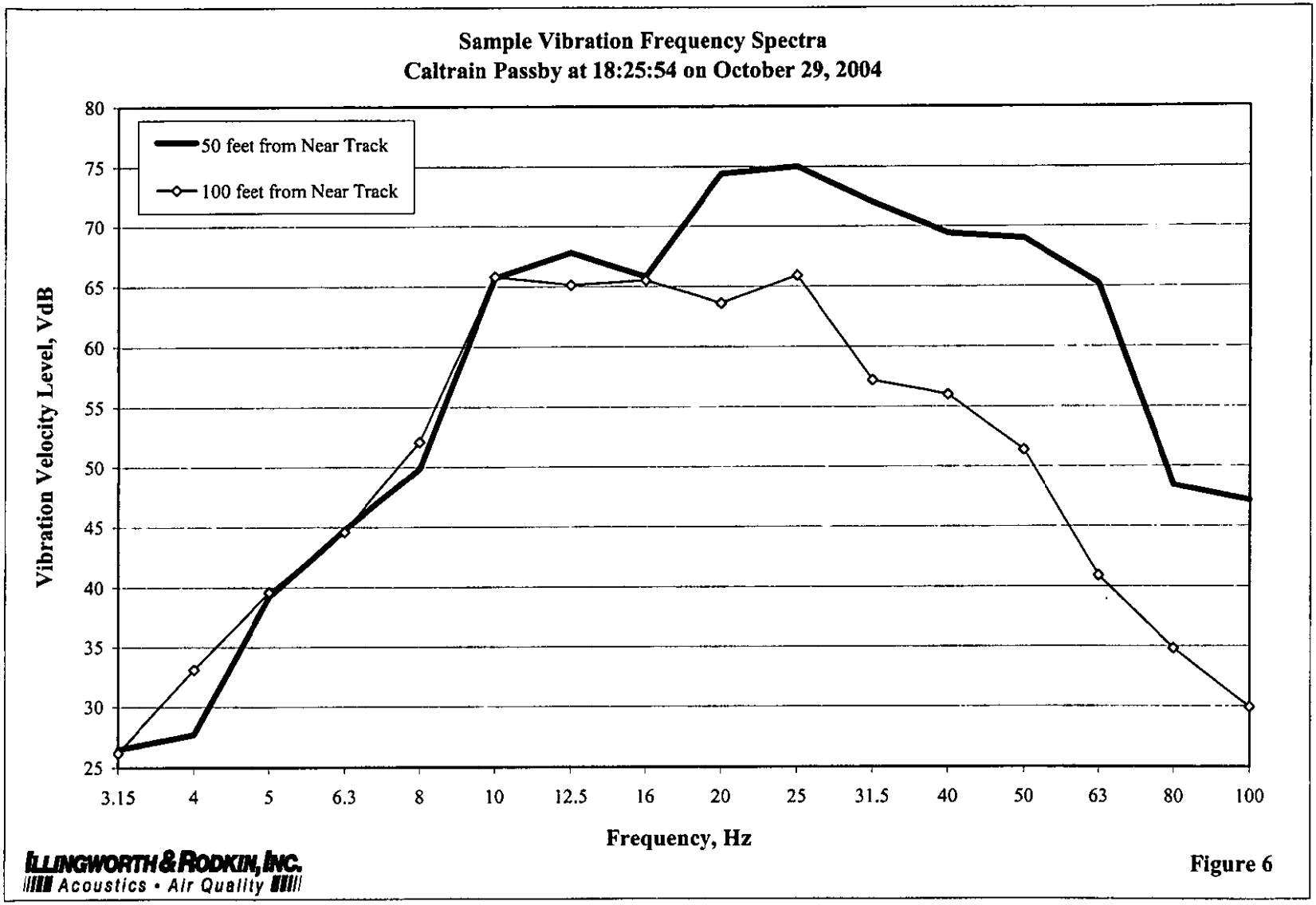

Sample Vibration Frequency Spectra
Caltrain Passby at 18:25:54 on October 29, 2004
50 feet from Near Track
100 feet from Near Track
Vibration Velocity Level, VdB
80
75
70
65
60
55
50
45
40
35
30
25
3.15
4
5
6.3
8
10
12.5
16
20
25
31.5
40
50
63
80
100
Frequency, Hz
ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

Figure 6

NOISE IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines states that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, if persons are exposed to excessive groundborne vibration, if noise levels generated by the project would substantially increase existing noise levels on a permanent or temporary basis, or if persons would be located within two miles of a public airport and exposed to excessive noise levels.

Noise and Land Use Compatibility. Land use proposals where existing or future noise levels exceed levels considered "satisfactory" would be considered significant. For the proposed residential land uses, noise levels of 60 dBA DNL or less are considered satisfactory. Multi-family residential development in noise environments exceeding 60 dBA DNL is further subject to the requirements of Appendix Chapter 1208A.8.4 of the California Building Code. The noise limit is a maximum interior noise level of 45 dBA DNL /CNEL. Where exterior noise levels exceed 60 dBA DNL, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

Groundborne Vibration. A significant impact would be identified where residential land uses proposed by the project would be exposed to vibration levels exceeding the FTA criteria for groundborne vibration generated by infrequent events. The vibration criterion for defining an impact is 80 VdB when there are less than 70 events per day.

Substantial Increase to Noise Levels. A substantial permanent noise level increase would be considered significant if the project increases noise levels by 3 dBA DNL or greater.

Construction Noise. Construction activities produce temporary noise impacts. Since these impacts would be short-term and vary considerably day-to-day, they are evaluated somewhat differently than operational impacts. When construction activities are predicted to cause prolonged interference with normal outdoor activities in noise-sensitive areas and exceed ambient noise levels by 5 dBA or more, the impact would be considered significant.

Noise and Land Use Compatibility (Aircraft). Residential land use proposals where noise levels exceed 65 dBA CNEL would be considered significant.

Impact 1: **Noise and Land Use Compatibility.** Future residential uses that would be developed at the project site would be exposed to exterior noise levels greater than 60 DNL which exceeds the noise and land use compatibility standards presented in the City of Jose's General Plan. Interior noise levels would be expected to exceed 45 DNL without the incorporation of noise insulation features in the project design. **This is a potentially significant impact.**

Exterior Noise

The noise environment at the project site exceeds the City's short-term noise level goal for exterior noise (60 DNL) as a result of transportation noise sources in the site vicinity (i.e., Monterey Road, the Union Pacific Railroad, and the San Jose International Airport). Noise generated by the operation of adjacent industrial use (Raisch Materials Processing Facility) would also contribute to the future noise environment at adjacent receivers. Exterior noise levels throughout the project site would exceed the "satisfactory" compatibility standard for residential land uses established by the City of San Jose.

Receivers adjacent to Monterey Road would be exposed to noise generated primarily by vehicular traffic. A review of the traffic data prepared for the project indicates that future noise levels are anticipated to increase by about 1 decibel with the cumulative build-out of the project area. Future noise levels at the facades of the nearest proposed buildings (70 feet from the center of Monterey Road) would be about 77 DNL. Noise levels in outdoor use areas would be required to be maintained at or below 60 DNL to be considered acceptable for residential development.

Residential units constructed along the westernmost portion of the project site would be exposed to exterior noise levels of up to 72 DNL as a result of train passages and aircraft overflights. The units adjacent to the boundary with the Raisch Materials Processing facility would be exposed to a DNL of up to 65 dBA due to the plant alone and about 69 dBA due to the combination of railroad noise, plant noise, and aircraft overflight noise.

The proposed site plan identifies a six-foot masonry noise barrier along the westernmost and southernmost property lines of the project site. Given the locations of the proposed noise barriers and relative height of the noise sources, these barriers would not be effective in reducing noise. The site plan indicates that common exterior use areas at the condominium and apartment buildings along the west and south boundaries of the site would be shielded from railroad noise and industrial noise by the proposed residential buildings. Approximately 10 decibels of noise reduction would be provided when locating the common exterior use areas in this manner. Exterior noise levels at common outdoor use areas adjacent to the railroad would range from about 63 DNL to 64 DNL. Common outdoor use areas along the south boundary of the site would experience exterior noise levels of about 60 DNL to 63 DNL.

Noise levels at interior portions of the project site, away from Monterey Road, the UPRR, and Raisch Products, would result primarily from aircraft. The noise environment resulting from aircraft would be considered acceptable for residential development by the Santa Clara County Airport Land Use Commission as the noise level from aircraft does not exceed 65 dBA CNEL. CNEL noise levels from the airport would be expected to be approximately 60 dBA CNEL on site.

Interior Noise

The project proposes multi-story residential units throughout the site. Exterior noise levels at the facades of residential units adjacent to Monterey Road would be expected to be about 77 DNL. Exterior noise levels at the facades of residential units immediately adjacent to the railroad and Raisch Products would be expected to range from about 65 to 72 DNL. Exterior noise levels at the facades of units within the central portion of the site would be expected to be about 60 DNL as a result of aircraft.

Where exterior day-night average noise levels are less than 70 DNL, interior noise level can typically be maintained below City and State standards (45 DNL) with the incorporation of forced air mechanical ventilation systems in residential units. Typically, standard construction with a forced air unit (allowing the occupant to control noise by maintaining the windows shut) provides approximately 25 dBA of noise reduction in interior spaces. If exterior noise levels are less than 70 DNL, interior noise levels will be less than 45 DNL.

Where noise levels exceed 70 DNL, forced-air mechanical ventilation systems and sound-rated construction would be required. The exact specifications of window and wall systems cannot be accurately predicted at this time, but once building elevations and floor plans are developed, the specifications can be made. To control interior maximum noise levels and minimize the potential for activity interference and sleep disturbance, noise insulation features such as stucco-sided walls and sound-rated windows and doors would be required for residences located near the westernmost, southernmost and easternmost boundaries of the project site. It is likely that STC ratings of up to 40 would be required for windows of units closest to the railroad, depending on the final architecture. Residential units proposed in buildings adjacent to Raisch Products would be separated from the southernmost façade by a corridor. The separation of the living space from the southernmost façade of these buildings would provide sufficient noise reduction in interior living spaces.

Additional noise insulation features will need to be developed once detailed plans are available. The noise control treatments should be designed to reduce noise levels from Monterey Road, the UPRR, aircraft, and adjacent industrial uses to 45 DNL or less. The final design of noise control will be based on the final architecture of each building.

Mitigation Measures:

The following mitigation measures shall be included in the project to reduce the impact to a less-than-significant level:

- When refining the project's site plan, continue to locate noise-sensitive outdoor use areas away from adjacent noise sources. Shield noise-sensitive spaces with buildings or noise barriers whenever possible. Overall noise levels would continue to exceed 60 DNL in some areas as a result of transportation noise sources and industrial sources in the project vicinity; however, the City recognizes that the exterior noise goal cannot be achieved in

the environs of major roadways and the San Jose International Airport. When exterior noise levels exceed 60 DNL, interior noise levels must be maintained at or below 45 DNL.

- Project-specific acoustical analyses are required by the City of San Jose to insure that interior noise levels will be reduced to 45 DNL or lower. Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation for all new units, so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required for new residential uses adjacent to the railroad. These treatments include, but are not limited to, sound rated windows and doors, sound rated wall constructions, acoustical caulking, etc. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 DNL or lower.

With the implementation of the above measures, the impact would be considered less-than-significant.

Impact 2: **Groundborne Vibration.** Union Pacific Railroad tracks border the project site's westernmost property line. Vibration generated during railroad train passbys would meet FTA guidelines for vibration at the nearest residential land uses. **This is a less than significant impact.**

A review of the noise data indicates that approximately 19 to 23 trains pass the site per day. "Infrequent Events" are defined as fewer than 70 vibration events per day. The 80 VdB limit was used in the evaluation of the project with respect to vibration compatibility. Based on the results of the vibration measurements, the calculated 80 VdB contour distance is 60 feet from the center of the near through-track.

The site plan indicates that the nearest proposed residential units would be located about 65 feet from the center of the nearest through-track. Vibration generated during train passbys would be approximately 79 to 80 VdB. Vibration at this level would be expected to be noticeable by at least some of the occupants of these homes, but would not exceed the 80 VdB limit defined for infrequent events

Mitigation Measures: NONE.

Impact 3: **Off-Site Project-Generated Traffic Noise.** The proposed residential project will not measurably increase traffic noise levels along roadways in the project vicinity. **This is a less-than-significant impact.**

Based upon a review of the traffic study prepared by *DKS Associates*, project generated traffic would not substantially increase noise levels over existing conditions. The relative change in traffic noise levels resulting from the project were calculated at forty-one intersections in the project vicinity. Noise levels would increase by about 0 to 1 dBA on area roadway segments. This is a less than significant impact.

Mitigation Measures: NONE

Impact 4: **Construction Noise.** During construction, noise levels would be temporarily elevated in the adjacent Chateau La Salle Mobile Home Park. Noise levels would not be expected to exceed an hourly L_{eq} of 60 dBA and the ambient by more than 5 dBA due to the presence of an existing 8-foot solid metal fence between the mobile home park and the site. **This is a less-than-significant impact.**

The construction of the project would generate noise, and would temporarily increase noise levels at adjacent land uses. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Where noise from construction activities exceeds 60 dBA L_{eq} and exceeds the ambient noise environment by at least 5 dBA at noise-sensitive uses in the project vicinity, the impact would be considered significant.

Construction activities generate considerable amounts of noise, especially during the demolition phase and the construction of project infrastructure when heavy equipment is used. Typical hourly average construction generated noise levels are about 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.) Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by existing noise barriers would provide about 10 decibels of noise reduction at adjacent receptors.

Typically, residential construction projects do not generate significant noise impacts when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less. Construction noises associated with projects of this type are disturbances that are necessary for the construction or repair of buildings and structures in urban areas. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Limiting the hours when construction can occur to daytime hours is

often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and utilizing "quiet" construction equipment can also reduce the potential for noise impacts.

Project construction would be expected to generate worst-case hourly average noise levels of about 60 to 65 dBA L_{eq} at the nearest noise-sensitive receivers when construction occurs along the northernmost portion of the project site. As noted above, there is an existing solid 8-foot metal fence between the Chateau La Salle Mobile Home Park and the project site. This barrier will reduce noise propagation by about 10 dBA and significantly reduce construction noise impacts to the existing mobile home park. Average noise levels would be expected to be below 60 dBA and the ambient except when construction occurs directly adjacent to the property line, which in any case, would not last very long. During the vast majority of the construction period, noise levels would be below existing background noise levels in the area. The anticipated construction noise levels at distant residential receivers would generally coincide with existing noise levels generated by transportation noise sources in the area. As construction proceeds away from the northernmost portion of the project site, construction noise would be further reduced. The construction of the project is not anticipated to adversely affect residential receivers uses in the immediate vicinity or distant. This is a less-than-significant impact.

Construction Noise Control Measures:

Although the impact would be less-than-significant, the following standards noise control practices should be implemented at the project site during all phases of project construction:

- Limit construction to the hours of 7:00 a.m. to 7:00 p.m. on weekdays, and 9:00 a.m. to 5:00 p.m. on Saturdays, with no noise-generating construction activities on Sundays or holidays.

- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.

- Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.

- Utilize "quiet" air compressors and other stationery noise sources where technology exists.

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City shall be responsible for designating a noise disturbance coordinator

and the individual project sponsor shall be responsible for posting the phone number and providing construction schedule notices).

Impact 5: **Noise and Land Use Compatibility (Aircraft).** Residential uses developed at the site would be located in a compatible noise environment in the vicinity of the San Jose International Airport. **This is a less-than-significant impact.**

A review of the 65 dB CNEL noise contour map established by the Santa Clara County ALUC indicates that the project site is located outside of the future 65 dBA CNEL noise contour. Where noise levels are less than 65 dBA CNEL, residential land uses are considered compatible with the exterior noise environment. Interior noise levels resulting from aircraft, discussed in Impact 1, would be less than 45 DNL with the incorporation of mitigation. This is a less-than-significant impact.

Mitigation Measures: NONE

Appendix G

San Jose Water Company
North First Street & Goble Lane
Initial Water Supply Assessment

Summary of Findings

An initial study of the operation of our available supply and current distribution system shows that San Jose Water Company (SJWC) currently cannot adequately serve the portion of the North First Street project in our service area. However, SJWC will now begin planning the addition of three new wells as a source of supply at locations to be determined to adequately provide water for this project. The proposed North First Street project is located in one of our large zones and the demand increase (3267 AF/yr) our system would incur is too great based on our current system operation. Additional sources of supply would be required to serve the proposed project area with adequate pressure. Initial estimates of the additional supply required are one to three new wells. For the most part, the North First Street project area is currently designed for a fire flow of approximately 4500 gpm and it is not likely that any extensive pipe upsizing in the area would be required. Also, no additional storage is believed to be required to serve the area. There maybe some projects which would require isolated areas of infrastructure improvement, and those would be paid for by the developers.

An initial study of SJWC's available supply and current operation of the distribution system shows that SJWC should be able to adequately supply the Goble Lane project with an estimated demand increase of 192 AF/yr without any changes to source of supply.

Service Area & Climate Description

SJWC's service area encompasses 138 square miles, including most of San Jose, most of Cupertino, the entire cities of Campbell, Monte Sereno, Saratoga, the Town of Los Gatos and parts of unincorporated Santa Clara County.

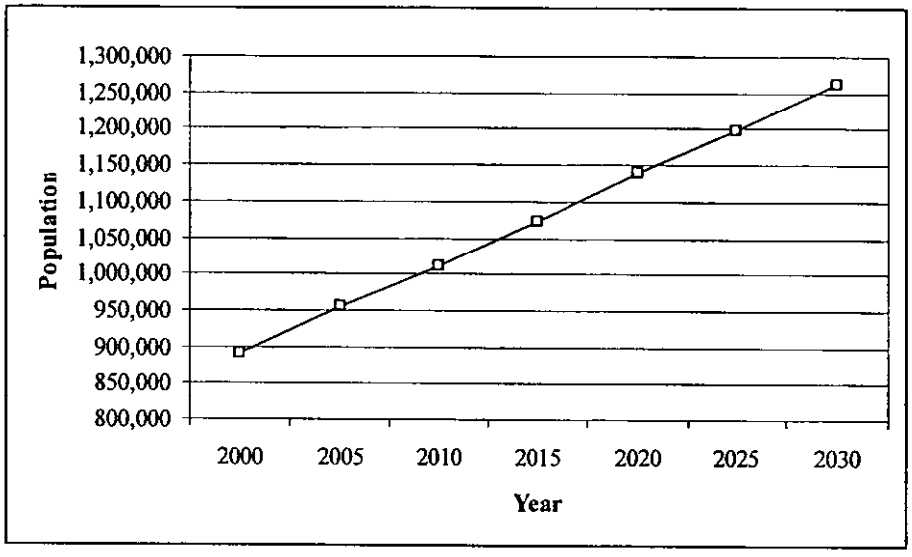
The San Jose area experiences a low-humidity climate with an average of 14 inches of rain annually. Temperatures range from the mid 60's to the high 80's (°F) in spring and summer and range from the mid 40's to mid 50's (°F) in the winter. Most of the precipitation in the area occurs between November and March with December and January typically being the wettest months. Further climate data is listed in the table below.

Climate Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg Precip (in)	2.9	2.5	2.1	1.1	0.4	0.1	0	0.1	0.2	0.7	1.6	2.5	14.2
Avg Temp (°F)	49.6	53.1	55.5	58.7	62.7	66.9	69.4	69.3	68.3	63.2	55.5	49.7	60.2
Evapo-transpiration (in)	1.48	1.88	3.35	4.74	5.36	6.25	6.74	5.99	4.52	3.34	1.82	1.48	47.04

The population of the SJWC's service area is shown in the chart below. These population projections are based on information from the Association of Bay Area Governments (ABAG).

Projected SJWC Service Area Population



Sources of Water

SJWC has three major sources of supply: groundwater, imported treated surface water and local raw surface water.

Groundwater comprises about half of SJWC's water supply. Approximately 115 wells pump water from the major water-bearing aquifers of the Santa Clara Valley Groundwater Subbasin. These aquifers are recharged naturally by rainfall and artificially by a system of local reservoirs and percolation ponds operated by the Santa Clara Valley Water District (SCVWD). SCVWD estimates natural groundwater pumping in the basin should not exceed an average of 200,000 AF/yr to avoid land subsidence.

SJWC is under contract with the SCVWD in the purchase of approximately forty percent of the water supply. This water originates from the State Water Project and the federally funded Central Valley Project San Felipe Division. It is piped into SJWC's system at various turnouts after it is treated at one of the three SCVWD's water filtration plants (Rinconada, Penitencia and Santa Teresa).

SJWC's final source of supply is from surface water in the local watersheds of the Santa Cruz Mountains. It provides approximately ten percent of the water supply in normal rainfall years; however it can be much lower in drought years. A series of dams and automated intakes collect the water released from SJWC's Lakes (Elsman, Williams and McKenzie). The water is then sent to SJWC's Montevina Filter Plant for treatment prior to entering the

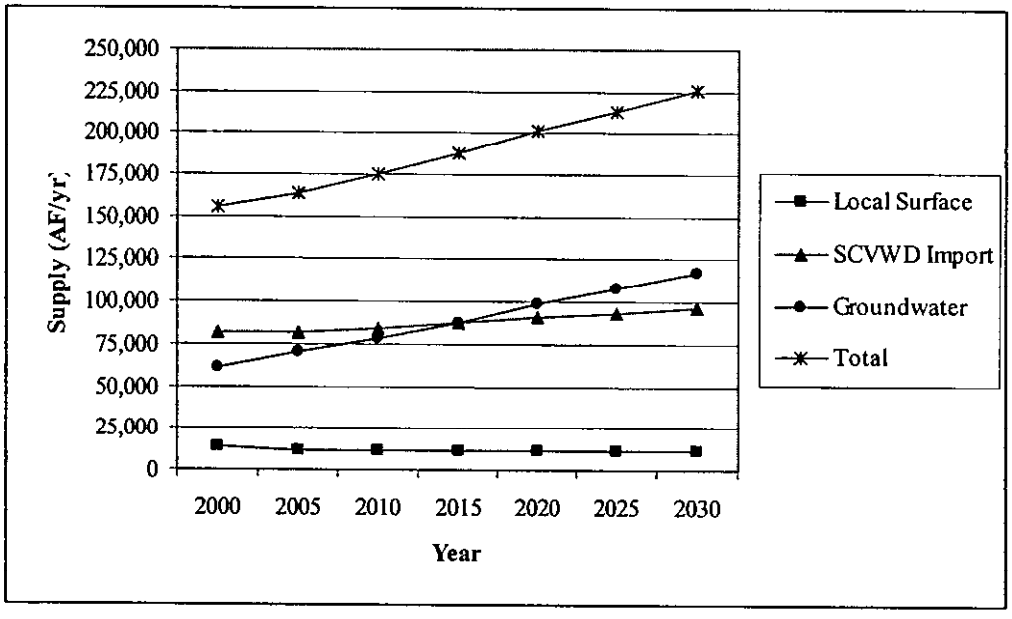
distribution system. SJWC's Saratoga Treatment Plant draws water from a local stream which collects water from the nearby Santa Cruz Mountains.

The table and chart below show the actual amount of water supplied to SJWC's distribution system from each source in varying rainfall years from 1995-2000 as well as projections until 2030. These projections are based on SJWC's plan to acquire the additional needed water for development projects, such as North First Street and Goble Lane, by installing new production wells within our distribution system and by purchasing more imported treated water from the SCVWD. For estimating purposes, a three to one ratio, groundwater to import, was used. The anticipated water requirements were increased by 1,009 AF/yr in 2010, 817 AF/yr in 2015, 817 AF/yr in 2020, and 816 AF/yr in 2025 to account for the North First Street and Goble Lane projects.

Quantity of Water Supply per Year by Source (in AF/yr)

Water Supply Source	2000	2005	2010	2015	2020	2025	2030
Local Surface	13,811	12,000	12,000	12,000	12,000	12,000	12,000
SCVWD Import	81,331	81,331	84,030	87,155	90,668	93,724	96,881
Groundwater	60,956	69,806	78,686	88,061	98,599	107,768	117,239
Total	156,098	163,137	174,716	187,217	201,267	213,492	226,120

Water Supply per Year by Source



Water Supply Vulnerability

The SCVWD states that they have "sufficient water supplies to meet the needs of the County through year 2020 . . . assuming the groundwater storage at the beginning of a drought event has not been seriously depleted by previous events" on page 39 of their 2001 Urban Water Management Plan. Since the majority (approximately ninety percent)

of SJWC's water supply originates through the SCVWD, the future of SJWC's water supply is secure for years to come.

The SCVWD encourages water retailers to provide at least two different sources of supply to make certain emergency water supplies are available in the event imported surface supplies are interrupted by disaster. SJWC's current three sources of water supply and connections to other retail water agencies contribute to SJWC's ability and flexibility to respond in the event of emergency situations. In addition, SJWC has recently expended millions of dollars on installing diesel fueled generators which will operate wells and pumps in the event of power outages.

Exchange or Transfer of Water Ability

SJWC's distribution system has interties with other water retailers in the San Jose area which allow for SJWC to provide additional water to other retailers and/or serve as another potential supply source. SJWC is connected to the following retailers: City of Santa Clara, City of San Jose Muni, Great Oaks Water and the SCVWD West Pipeline in Cupertino.

Past and Current Water Use

The majority of connections to SJWC's distribution system are either residential or commercial. SJWC also provides water to industry, municipal, private fire services and fire services connections. The table below lists a complete breakdown of the number of connections based on customer type. The number of future connections was calculated based on the estimated population projection from ABAG.

Number of Water Use Connections

Customer Type	2000	2005	2010	2015	2020	2025	2030
Residential	194,650	197,329	210,114	224,166	240,010	253,618	268,619
Business	21,709	22,341	22,341	22,341	22,341	22,341	22,341
Industry	138	119	120	122	124	125	127
Municipal	2,504	2,544	2,544	2,544	2,544	2,544	2,544
Fire Services	813	2,002	20,027	2,052	2,078	2,104	2,130
Other	64	60	61	62	62	63	64
Total	219,878	224,395	255,207	251,287	267,159	280,795	295,825

A complete breakdown of the actual and estimated future usage based on water use sectors is shown in the table below. The future usage was calculated based on the estimated population projection from ABAG. The estimated future usage includes an additional 3267 AF/yr for the North First Street Project in which added between years 2010 and 2025 in the sectors shown in General Plan for the North First Street Project. The estimated future usage also includes and additional 192 AF/ft for the Goble Lane

project which was applied in 2010. The Goble Lane additional demand was estimated to be 80% residential (154 AF/yr) and 20% commercial (38 AF/yr).

Water Use Sectors (AF/yr)

Customer Type	2000	2005	2010	2015	2020	2025	2030
Residential	86,633	90,539	97,217	104,375	112,409	119,440	126,504
Commercial	55,504	58,007	61,868	66,070	70,803	74,879	79,308
Industry	1,553	1,623	1,824	2,041	2,283	2,507	2,655
Municipal	11,266	11,774	12,537	13,375	14,321	15,133	16,028
Fire Services	298	311	332	354	379	400	424
Other	843	881	939	1,001	1,072	1,133	1,200
Total	156,098	163,137	174,716	187,217	201,267	213,492	226,120

Water Demand Management Measures

SJWC performs water audits as part of SJWC's Water Conservation Program. These water audits comprise of a SJWC water conservation inspector doing a thorough investigation of the customer's home or business. The inspector carefully inspects the property for leaks and measures the flow rates of all showers, faucets and toilets. The program targets the top 10% of users in each sector (residential, commercial, industry, municipal, and dedicated landscape accounts). SJWC first contacts the customers by letter and follows up with a phone call. The goals of this program are to identify the source of the customer's water consumption and recommend methods for more efficient water use.

SJWC participates in the SCVWD's residential clothes washer rebate program in which any washer labeled "Energy Star" qualifies the customer to a $150 rebate. SJWC informs the customers of this program through the water audits and at retail outlets where washing machines are sold. SJWC also augments its water audit program by providing customers with free low-flow showerheads and faucet aerators which are purchased by the SCVWD. These are distributed during water audits, during customer's visits to SJWC's main office, and during customer participation in public events.

SJWC is the wholesale retailer for the South Bay Water Recycling Program which takes treated wastewater that would normally be discharged into the San Francisco Bay and pipes it back into the basin to be used for landscape irrigation.

SJWC constantly performs a system-wide audit by maintaining extensive records on each customer's water use. Water production and usage are compared to determine the percentage of unaccounted for water, which is currently about 7% of water produced. The unaccounted for water includes authorized unmetered uses such as fire fighting and

main flushing. The remaining unmetered water is usually due to inaccurate meter readings, stuck meters, malfunctioning valve, leakage and theft.

SJWC has two full time staff member working to provide leak detection of the water distribution system. The highly skilled maintenance personnel use a leak detector to detect underground leaks. Once a leak is detected, crews are scheduled as quickly as possible to make the repair. SJWC also works with customers to resolve water loss and will assist customers in locating leaks on their facilities.
SJWC has a regular schedule of meter calibration and replacement for all meter types in the distribution system. Larger meters are routinely replaced, repaired and tested based on consumption. Smaller meters (1" and smaller) are replaced according to the manufacturer's recommended service life. If a customer believes the water meter is faulty, the meter is removed and tested. The customer is invited to witness the test in accordance with the California Public Utility Commission's (CPUC) rules.

The CPUC requires SJWC to provide consumer education programs. SJWC has conveyed water conservation to its customers through the following: providing water-efficient plumbing fixtures brochures in conjunction with the City of San Jose, providing a landscape irrigation brochure encouraging efficient outdoor water use, and providing annual water quality reports as a bill insert.

SJWC also attempts to reach the community in ways that go beyond the development and distribution of written materials. These methods include speaking to service groups, civil clubs, school groups and participating in annual Water Awareness Month activities. SJWC also participates in a few school education programs which include the Hacienda "Adopt A School" program in which SJWC coordinated development of an outdoor classroom project of a water-saving garden and pond filter system, multiple classroom presentations, and provides funding for annual field trips to science-related locations.

Costs

SJWC will spend between $1 million and $2 million for each new well, not including additional piping needed or any new land required for the well sites.

References:
San Jose Water Company's Water Management Program (February 2003)
Santa Clara Valley Water District's Urban Water Management Plan (April 2001)

Appendix H

NOTICE OF PREPARATION

OF A

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

GOBLE LANE MIXED USE DEVELOPMENT

PLANNED DEVELOPMENT REZONING

PROJECT APPLICANT: Roem Development Corporation
FILE NO: PDC02-066
APN: 455-09-003, 455-09-010, 455-09-030, 455-09-031, 455-09-034, 455-09-035, 455-09-038, 455-09-043

As the Lead Agency, the City of San José will prepare an Environmental Impact Report (EIR) for the above-referenced Project and would like your views regarding the scope and content of the environmental information to be addressed in the EIR. This EIR may be used by your agency when considering approvals for this project.

The project description, location, and probable environmental effects which will be analyzed in the EIR for the project, are attached.

According to State law, the deadline for your response is 30 days after the date listed on this notice; however, we would appreciate an earlier response, if possible. Please identify a contact person, and send your response to:

City of San Jose
Department of Planning, Building and Code Enforcement
Attn: Teresa Estrada

801 North First Street Room 400
San Jose, CA 95110-1795
Phone: (408) 277-4576

Stephen M. Haase, AICP
Director of Planning, Building and Code Enforcement

_____
Deputy

Date: February 10, 2005

NOTICE OF PREPARATION
OF A
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE
GOBLE LANE MIXED USE DEVELOPMENT
PLANNED DEVELOPMENT REZONING

FILE NO. PDC02-066

February 2005

Introduction

The purpose of an Environmental Impact Report (EIR) is to inform decision-makers and the general public of the environmental effects of a proposed project that an agency may implement or approve. The EIR process is intended to provide information sufficient to evaluate a project and its potential for significant impacts on the environment; to examine methods of reducing adverse impacts; and to consider alternatives to the project.

The EIR for the proposed project will be prepared and processed in accordance with the California Environmental Quality Act (CEQA) of 1970, as amended. In accordance with the requirements of CEQA, the EIR will include the following:

- A summary of the project;
- A project description;
- A description of the existing environmental setting, potential environmental impacts, and mitigation measures for the project site;
- Alternatives to the project as proposed; and
- Environmental consequences, including (a) any significant environmental effects which cannot be avoided if the project is implemented; (b) any significant irreversible and irretrievable commitments of resources; (c) the growth inducing impacts of the proposed project; (d) effects found not to be significant; and (e) cumulative impacts.

Project Location and Description

The proposed project site is an approximate 29.5-acre site at the southwest corner of Monterey Road and Goble Lane in the City of San Jose. The property is bounded by the Union Pacific railroad tracks to the west, the Chateau La Salle Mobile Home Park to the north, Monterey Road to the east, and the Raisch Products asphalt recycling plant to the south.

The project site is currently developed with industrial and commercial uses and a 54-unit mobile home park.

The project proposes to demolish the existing structures on the site and construct up to 18,000 square feet of commercial uses, a 2.0-acre public park, and up to 969 residential units, consisting of single-family detached residences and townhouses, condominiums, market rate apartments, and affordable apartment units. The City Council, in June 2004, approved a General Plan Amendment (File No. GP02-07-04) which changed the General Plan Designations of the site from Heavy Industrial, Combined Industrial/Commercial, Light Industrial, and Single Family Detached and Attached Residential (8-16 DU/AC) to High Density Residential (25-50 DU/AC) under the Communications Hill Specific Plan of the City of San José 2020 General Plan.

The necessary approvals for development of the project are a Planned Development Rezoning, Planned Development (PD) permit(s), and Tentative Map permit(s). Since the project anticipates applying for federal funding from the U.S. Department of Housing and Urban Development (HUD), environmental review for compliance with the National Environmental Policy Act (NEPA) under HUD procedures will also be performed concurrently for the project.

Potential Environmental Impacts of the Project

The EIR will identify significant environmental effects anticipated to result from development of the proposed project and will include at least the following specific environmental categories as related to the proposed project:

1. *Land Use*

The project site is located in a developed urbanized area surrounded by a mobile home park, a railroad line, commercial uses, an asphalt recycling plant and other industrial uses. The EIR will describe the existing land uses adjacent to and within the project area. Land use impacts which would occur as a result of the proposed project will be described, including the compatibility of the proposed project with existing land uses in the project area. Mitigation measures will be identified for significant impacts, as warranted.

2. *Transportation and Circulation*

The project site is located in a highly developed area of San José and, as can be expected, existing roadway volumes in the project areas are high. The EIR will examine the existing traffic conditions in the immediate vicinity of the project site. Traffic impacts will be assessed based on estimated project trips added to background traffic volumes (background traffic is existing traffic plus traffic from approved but not yet constructed projects). Mitigation measures will be identified for significant impacts, as warranted.

3. *Noise and Vibration*

The major noise sources in the project area include automobile traffic on Monterey Road, the adjacent railroad line, and the adjacent asphalt plant and other industrial uses in the area. The EIR will discuss the potential for the proposed project to be impacted by the existing noise levels in the vicinity of the project site. The EIR will also discuss the increase in traffic noise that would result from implementation of the proposed project, temporary construction noise, and the impact of this noise on adjacent residences. Noise levels will be evaluated for consistency with applicable standards and guidelines in the City of San José. The potential for existing noise levels of the adjacent industrial uses to affect the proposed residences will be assessed. The potential for ground vibration from the railroad line to affect the proposed housing units (particularly those nearest the western property line) will be evaluated. Mitigation measures will be identified for significant impacts, as warranted.

4. *Hazardous Materials*

The project site is located in an area surrounded by industrial uses to the south and west, residential to the north, and residential, commercial, and industrial to the east. The EIR will summarize known hazardous materials conditions on and adjacent to the project site, and address the potential for future residential development on this site to result in a hazardous materials impact. Mitigation measures will be identified for significant impacts, as warranted.

5. *Air Quality*

The San Francisco Bay Area is a non-attainment area for carbon monoxide. The EIR will address the regional air quality conditions in the Bay Area, and discuss the impacts of the proposed project on local and regional air quality. Temporary construction related impacts such as construction vehicle exhaust and air-bourne particulates (i.e., dust) will also be discussed. Mitigation measures will be identified for significant impacts, as warranted.

6. *Biological Resources*

The project site is currently developed; however, possible wetlands have been identified on the northwest corner of the property. The EIR will provide a discussion of the absence/presence of wetlands on the project site and identify all listed special-status species considered likely to be present. This section will evaluate the potential impacts of the future development on habitat value and listed species. Mitigation measures will be identified for significant impacts, as warranted.

7. *Historical and Cultural Resources*

The EIR will identify the likelihood that archaeological or historic resources could be impacted by the project, based upon a literature search and subsurface testing of the site. The EIR will identify appropriate and project-specific mitigation, if necessary.

8. *Utilities and Service Systems*

Implementation of the proposed project will result in an increased demand on utilities and public facilities

compared to existing conditions. The EIR will examine the impacts of the project on public services, including utilities such as sanitary and storm drains, water supply, and solid waste management. Mitigation measures will be identified for significant impacts, as warranted.

9. *Availability of Public Facilities and Services*

Implementation of the proposed project will result in an increased demand on public services such as police and fire protection, as well as schools, parks, and libraries. The EIR will address the availability of public facilities and service systems, and the potential for the project to require the construction of new facilities. Mitigation measures will be identified for significant impacts, as warranted.

10. *Energy*

In conformance with CEQA Section 15126.4(c), the EIR will examine the potential for the project to result in energy impacts and discuss the energy conservation measures included in the project. Mitigation measures will be identified for significant impacts, as warranted.

11. *Alternatives*

The EIR will examine alternatives to the proposed project including a "No Project" alternative and at least two alternative development scenarios including a reduced density project. Alternatives discussed will be chosen based on their ability to reduce or avoid identified significant impacts of the proposed project while achieving most of the objectives of the project proponent.

12. *Cumulative Impacts*

The EIR will include a Cumulative Impacts section which will address the potentially significant cumulative impacts of the project when considered with other past, present, and reasonably foreseeable future projects in the area. This section will cover all subject areas discussed in the EIR and will specify which of the areas are anticipated to experience significant cumulative impacts. Cumulative impacts will be discussed qualitatively, except where specific quantitative information on other pending projects is available prior to publication of the Draft EIR.

February 22, 2005

Ms. Teresa Estrada, Associate Planner
City of San José
Department of Planning, Building, and Code Enforcement
801 North First Street, Room 400
San José, CA 95110-1795

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the Goble Lane Mixed Use Development Planned Development Rezoning (SCH #2005022057)

Dear Ms. Estrada:

Thank you for the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Goble Lane Mixed Use Development Planned Development Rezoning (SCH #2005022057). The Peninsula Corridor Joint Powers Board has or is aware of the following projects adjacent to the proposed that you may want to include in the Cumulative Impacts section of the Draft Environmental Impact Report (DEIR):

- The Caltrain Electrification Program (SCH #2000082093) which proposes to electrify the Caltrain line from San Francisco to Gilroy. This proposed project is directly adjacent to your proposed project.
- The Santa Clara Valley Transportation Authority (VTA) has a proposed project called the Capitol Expressway Corridor (SCH # 2001092014) which calls for moving the Capitol Caltrain Station approximately 0.5 miles south of its present location to a position under where the Capitol Expressway crosses the train tracks.
- The VTA and Caltrain have plans to double track portions of the railroad right-of-way between San Jose and Gilroy in the future.
- There is a proposal for a 4-track alignment to support a future California High-Speed Rail program (SCH#2001042045).

We have the following comments on the project:

1. Sufficient setbacks from the JPB right-of-way line should be considered due to additional noise, vibration and presence of electrical facilities.
2. There will be the presence of signal facilities in the area with signal lamps about 40 feet over the tracks.
3. No drainage will be allowed to flow into the JPB right-of-way.
4. Trees for landscaping shall not be planted within 10 feet of the right-of-way line.
5. Access to JPB ROW will require a Right-of-Entry permit and a Service agreement with the JPB.

PENINSULA CORRIDOR JOINT POWERS BOARD
1250 San Carlos Ave. – P.O. Box 3006
San Carlos, CA 94070-1306 (650)508-6269

Please send us a copy of the DEIR when it is circulated. If you have any questions, please contact Erik Ólafsson of my staff at (650) 508-6368.

Sincerely,

Ian B. McAvoy
Chief Development Officer

cc: Ian McAvoy, Corinne Goodrich, Larry Stueck, Stephen Chao, Anthony Quicho, Erik Ólafsson, File (Caltrain)

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

Arnold Schwarzenegger, *Governor*

March 28, 2005

File No.183-43
SCH# 2005022057

Teresa Estrada
City of San Jose
801 North First Street
San Jose, CA 95110-1795

RE: Goble Lane Mixed-Use Development

Dear Ms. Estrada:

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the City of San Jose are planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to the Union Pacific Railroad (UP) right-of-way.

Safety considerations may include, but are not limited to, the following items:

- Grade separation of the crossings along major thoroughfares
- Fencing to limit the access of pedestrians onto the railroad right-of-way
- Improvements to warning devices at existing highway-rail crossings
- Improvements to traffic signaling at intersections adjacent to crossings
- Improvements to roadway geometry and lane striping near crossings
- Increased enforcement of traffic laws at crossings
- A safety awareness program on rail related hazards

Of particular concern for this project are pedestrian circulation patterns and destinations. Since the proposed project is adjacent to the railroad corridor, appropriate effective barriers (fencing) would greatly improve the safety in the vicinity.

The above-mentioned safety improvements should be considered when approval is sought for new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the City.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Dick Dahllof, Caltrain
Patrick Kerr, UP
Jay Thorstensen, City of San Jose